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October 6, 2023

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VIA EMAIL

Kelly Garcia
Antitrust Division
U.S. Dept. of Justice
450 5th Street, N.W.
Washington, DC 20530
Kelly.Garcia@usdoj.gov

Re: *United States, et al. v. Google LLC*, No. 1:23-cv-00108-LMB-JFA

Dear Kelly,

Consistent with our agreement concerning the modification of Plaintiffs' 30(b)(6) Notice, we write in response to Topics 1(j), 8, 9, and 11.¹

Topic 1(j)

AdX direct, Yavin, Ad Connector, dual/hybrid ad server setups, and any other means through which AdX submits bids to publishers that do not use DFP as their Publisher Ad Server, including:²

Topic 1(j)(a)

The extent to which these products/services are available to, marketed to, or used by U.S. publishers;

¹ Google's responses to Topics 8 and 11 also address Michael Freeman's questions in Appendix A to his August 1 letter.

² Google understands the word "including" here to have been included in error and has confined its response to the listed subparts for each of the enumerated products.

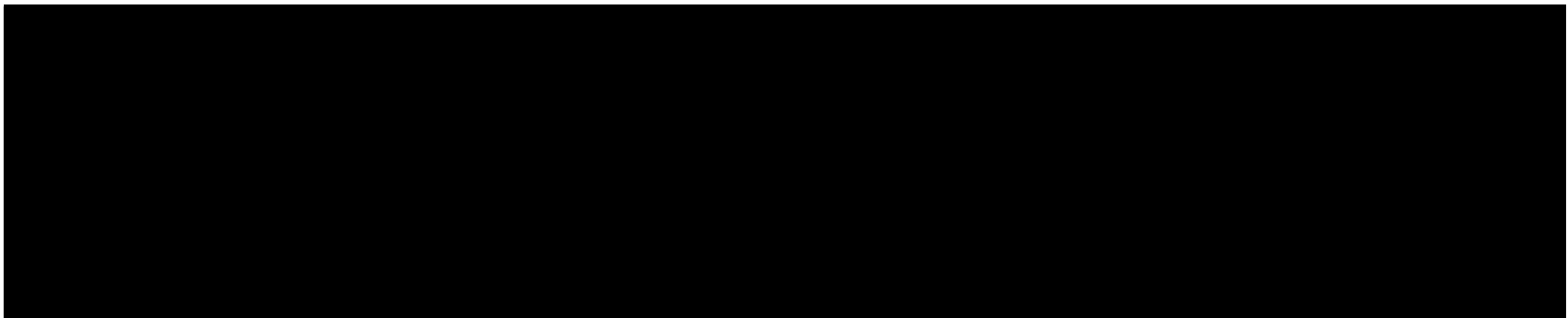
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AdX Direct: AdX Direct is a name given to publisher configurations that integrate with Google Ad Manager's ad exchange using its "Ad Exchange tag."³ Although Google does not specifically market AdX Direct to publishers, the feature is disclosed in GAM's help center and surfaced in the Ad Manager User Interface, where any publisher having an GAM ad exchange account can access it.

Ad Connector/Yavin: Ad Connector (internally also known as "Yavin") is a service that allows Google Ads and DV360 to bid into ad auctions conducted on publishers' proprietary ad servers. Because Ad Connector requires custom integrations between Google and each customer's ad server, it was offered to customers on a one-off basis based on Google's available integration resources. It was "marketed" to publishers as such.

Dual/Hybrid Ad Server Setups: Google does not affirmatively market to publishers that they can use a "dual/hybrid ad server setup," but there is no technical or contractual limitation prohibiting any publisher who has a Google Ad Manager account from also using a non-GAM ad server and certain features that would facilitate such a setup are documented in the Ad Manager Help Center.



Topic 1(j)(b)

Which publishers use these products/services;

AdX Direct: Because AdX Direct is implemented by the placement of appropriate tags on web pages, apps, or video content (or third-party ad servers), and not by signing up for a service with Google, Google does not have the ability to generate a single, canonical list of the publishers using AdX Direct. An analysis of Google's data, however, shows that [REDACTED] US-billed "web property IDs" (which can represent an entire publisher or a subset of a publisher's business) used AdX Direct at some point between 2014-2022. For 2022, [REDACTED] distinct US-billed web property IDs were associated with at least one AdX Direct transaction.

³ See, e.g., Google Ad Manager Help Center: Generate Ad Exchange ad tags. For the avoidance of doubt, AdX Direct as described here also includes Google Publisher Tag (GPT) tags, which have similar functionality and cannot readily be distinguished from AdX Direct in the available historical data.

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Ad Connector/Yavin: Starting in 2018, six publishers have utilized Yavin/Ad Connector during various years. Those publishers are: [REDACTED]

[REDACTED].⁴

Dual/Hybrid Ad Server Setups: Google does not have any way to authoritatively identify the number of publishers using such setups.

[REDACTED]

Topic 1(j)(c)

What types of impressions these products/services bid on;

Omitted per the parties' agreement.

Topic 1(j)(d)

The percentage of U.S. and worldwide AdX open web display impressions accounted for by these products/services (broken down by (1) open auction and (2) programmatic guaranteed, programmatic direct, private marketplace combined);

AdX Direct: Over the time period 2014-2022, AdX Direct has constituted approximately [REDACTED]% of total worldwide AdX web display impressions and [REDACTED]% of total US end-user web display impressions for worldwide-billed web property IDs. When breaking down AdX Direct's impression share by transaction type during the same overall period, almost all AdX Direct web display impressions are attributed to Open Auction ([REDACTED]% of total AdX web display impressions), followed by very small amounts of Private Auction [REDACTED]% of total AdX web display impressions) and Preferred Deal ([REDACTED]% of total AdX web display impressions). Results for US end-user generated impressions are similar to worldwide, with the vast majority of AdX Direct web display impressions attributed to Open Auction ([REDACTED]% of total US AdX web display impressions), followed by Private Auction [REDACTED]% of total US AdX web display impressions) and Preferred Deal ([REDACTED]% of total US AdX web display impressions).

Ad Connector/Yavin: Unlike AdX Direct, Ad Connector is treated by Google as a separate product rather than a subset of Google Ad Manager / AdX. Moreover, the relevant auctions are conducted by publishers, not Google. It therefore does not make sense to speak of Ad Connector impressions "as a percentage of U.S. and worldwide AdX open web display impressions." However, the number of Ad Connector impressions for the years 2018-2022 is such that, if they *were* treated as AdX impressions solely for purposes of this response, they would amount to less

⁴ Publishers with a star (*) have impressions attributed to the US as the publisher billing country.

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than █% of all such AdX impressions. All of those impressions were Open Auction, as Ad Connector/Yavin does not support other transaction types.

Dual/Hybrid Ad Server Setups: Google does not have any way to authoritatively identify the publishers using a “dual/hybrid ad server setup” (which term is in any event not defined in Plaintiffs’ notice).

██
██

Topic 1(j)(e)

Omitted in original request

Topic 1(j)(f)

The extent to which these products/services are growing or declining over time; and

AdX Direct:

Table 1 below shows the total worldwide and U.S. end user web display impression volume through AdX Direct for each year from 2014-2022, as well as the percentage of U.S.-billed and worldwide web property IDs with at least one AdX Direct impression for the same years.⁵

Table 1

Year	AdX Direct Impressions (WW)	Share of Web Property IDs using AdX Direct (WW)	AdX Direct Impressions (US)	Share of Web Property IDs using AdX Direct (US)
2014	1,306,646,087,985	85.8%	210,730,758,957	83.2%
2015	1,475,114,087,250	84.0%	208,840,833,835	80.5%
2016	1,556,511,295,724	83.9%	234,569,727,896	80.5%

⁵ Source: GOOG-AT-MDL-DATA-000066537-000482007 (mdl_rfp_243_adx_submission & mdl_rfp_adx_crosswalk) and GOOG-AT-MDL-DATA-000508827-000558886 (mdl_rfp_243_adx_submission_jul_2022_mar_2023_supplement & mdl_rfp_243_adx_crosswalk_supplement) data produced to DOJ plaintiffs on July 7, 2023.

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2017	1,341,899,665,297	75.9%	181,579,051,102	75.5%
2018	959,525,037,810	61.8%	136,539,193,068	58.6%
2019	668,704,016,150	49.5%	100,776,530,698	47.4%
2020	646,908,385,123	43.1%	123,108,065,983	41.5%
2021				
2022				

Ad Connector/Yavin:

Table 2 shows the total worldwide and U.S.-billed web display impression volume through Ad Connector for each year from 2018-2022.⁶

Table 2

Year	Worldwide	US-billed
2018	420,616,442	418,171,005
2019	1,076,411,162	536,752,302
2020	339,501,569	18,663,618
2021		
2022		

⁶ Source: GOOG-AT-MDL-DATA-000559277-000561030 (mdl_xpp_daily_current_stats_submission) data produced to DOJ plaintiffs on July 7, 2023.

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Dual/Hybrid Ad Server Setups: Google does not have any way to authoritatively identify the publishers using a “dual/hybrid ad server setup” and therefore cannot testify as to the degree to which their use is growing or declining over time.



Topic 1(j)(g)

Any plans to deprecate or degrade any of these products and services.

Omitted per the parties' agreement.

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Topic 8

Topic 8 seeks testimony regarding the definitions of fields and values within fields for data sets previously produced by Google. In response to Topic 8, Google includes as Appendix A definitions of all fields in the following datasets:

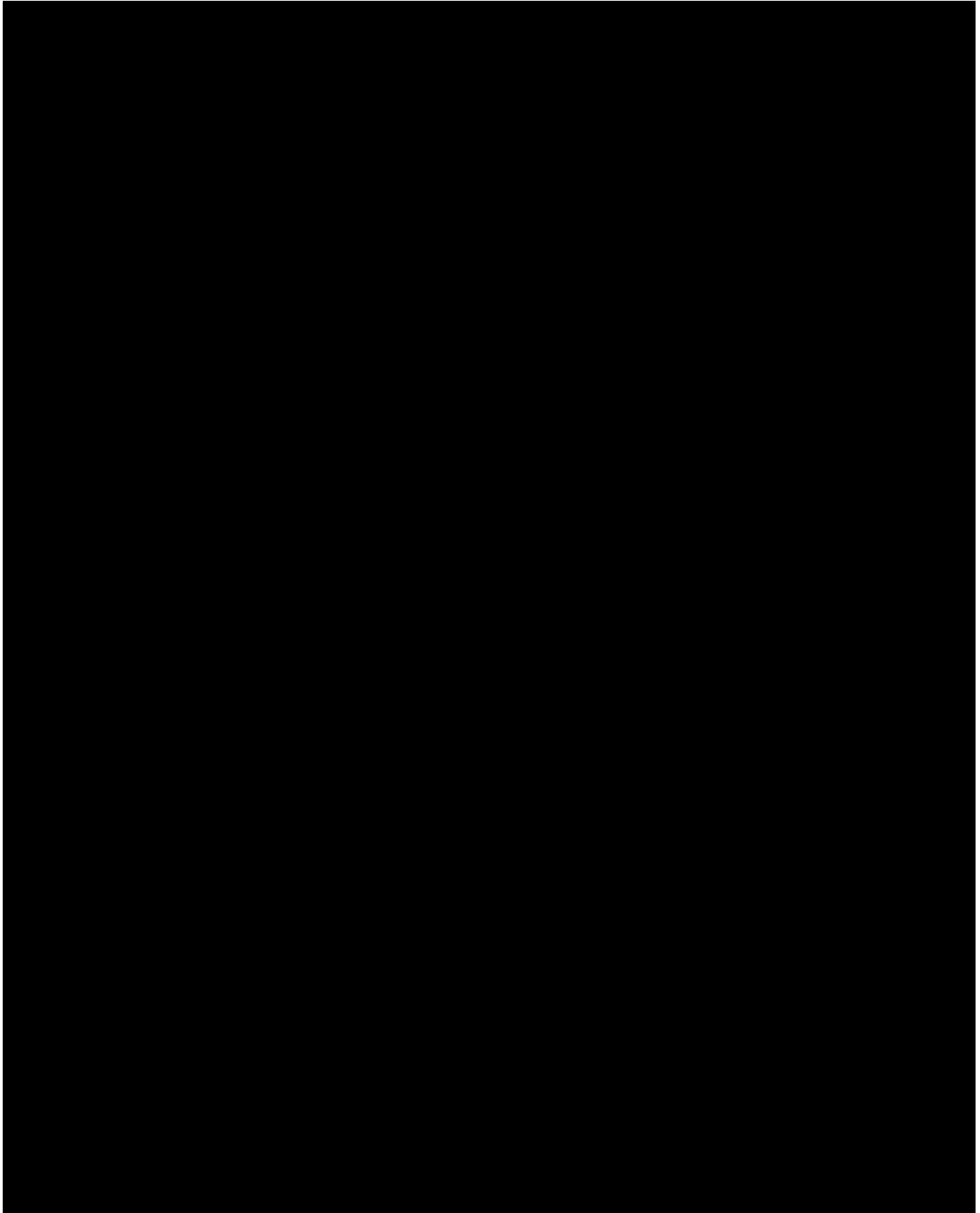
- The Google Ads dataset produced in response to RFP 7 **(8(a))**
- The DV360 dataset produced in response to RFP 7 **(8(b))**
- The XP Daily dataset produced in response to RFP 7 **(8(c))**
- The DV360 XBridge data produced in response to RFP 7 **(8(d))**
- The AdX/Open Bidding data produced in response to RFP 7 **(8(e))**
- The GOOG-AT-EDVA-DATA-000000002.csv and GOOG-AT-EDVA-DATA-000000007.xlsx datasets produced in response to RFP 51 **(8(f))**
- The GOOG-AT-EDVA-DATA-000000005.xlsx and GOOG-AT-EDVA-DATA-000000007.csv datasets produced in response to RFP 51 **(8(g))**
- The GOOG-AT-EDVA-DATA-000000006.xlsx dataset produced in response to RFP 51 **(8(h))**
- The GOOG-AT-EDVA-DATA-000000012 dataset produced in response to RFP 52 **(8(i))**
- The dataset contained in GOOG-AT-EDVA-DATA-000000175 to -00385 produced in response to RFP 54 **(8(j))**
- The GOOG-AT-EDVA-DATA-000000386 dataset produced in response to RFP 55 **(8(k))**
- The GOOG-AT-EDVA-DATA-000000002 and GOOG-AT-EDVA-DATA-000000007 datasets produced in response to RFP 55 **(8(l))**
- The GOOG-AT-EDVA-DATA-000000387 and GOOG-AT-EDVA-DATA-000000388 datasets produced in response to RFP 55 **(8(m))**

We do not provide definitions of every single value in every single field in each dataset, as doing so would be unduly burdensome, especially when the meaning of many of the field values is apparent from their face. We have, however, provided definitions for all field values and responded to all questions that were included in Appendix A to Michael Freeman's August 1 letter. We provide below cross-references between the questions in Appendix A to Michael Freeman's letter and the sub-parts of Topic 8 corresponding to the dataset referenced.

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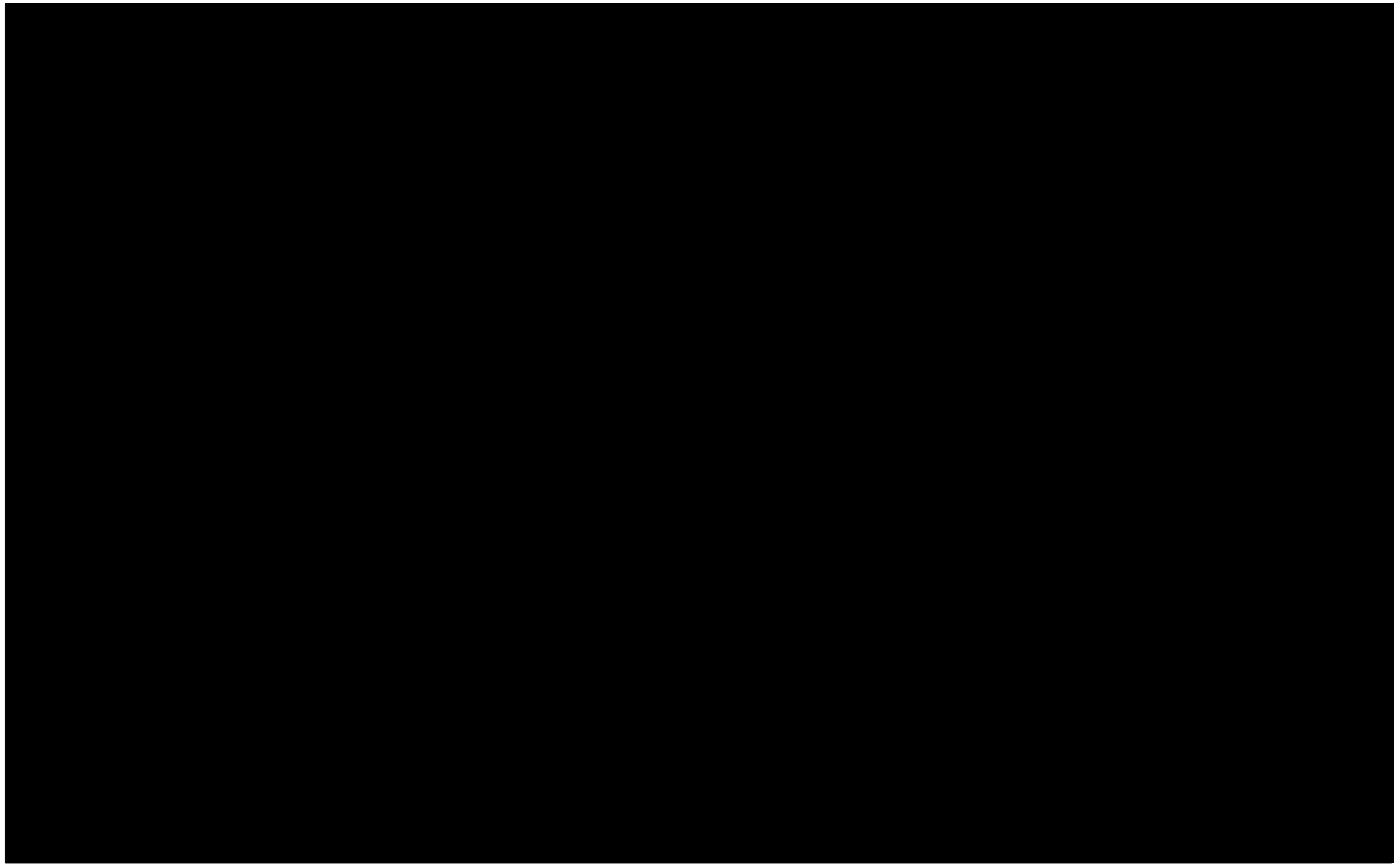
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30(b)(6) Topic 8(a) / Freeman - RFP 7 Google Ads

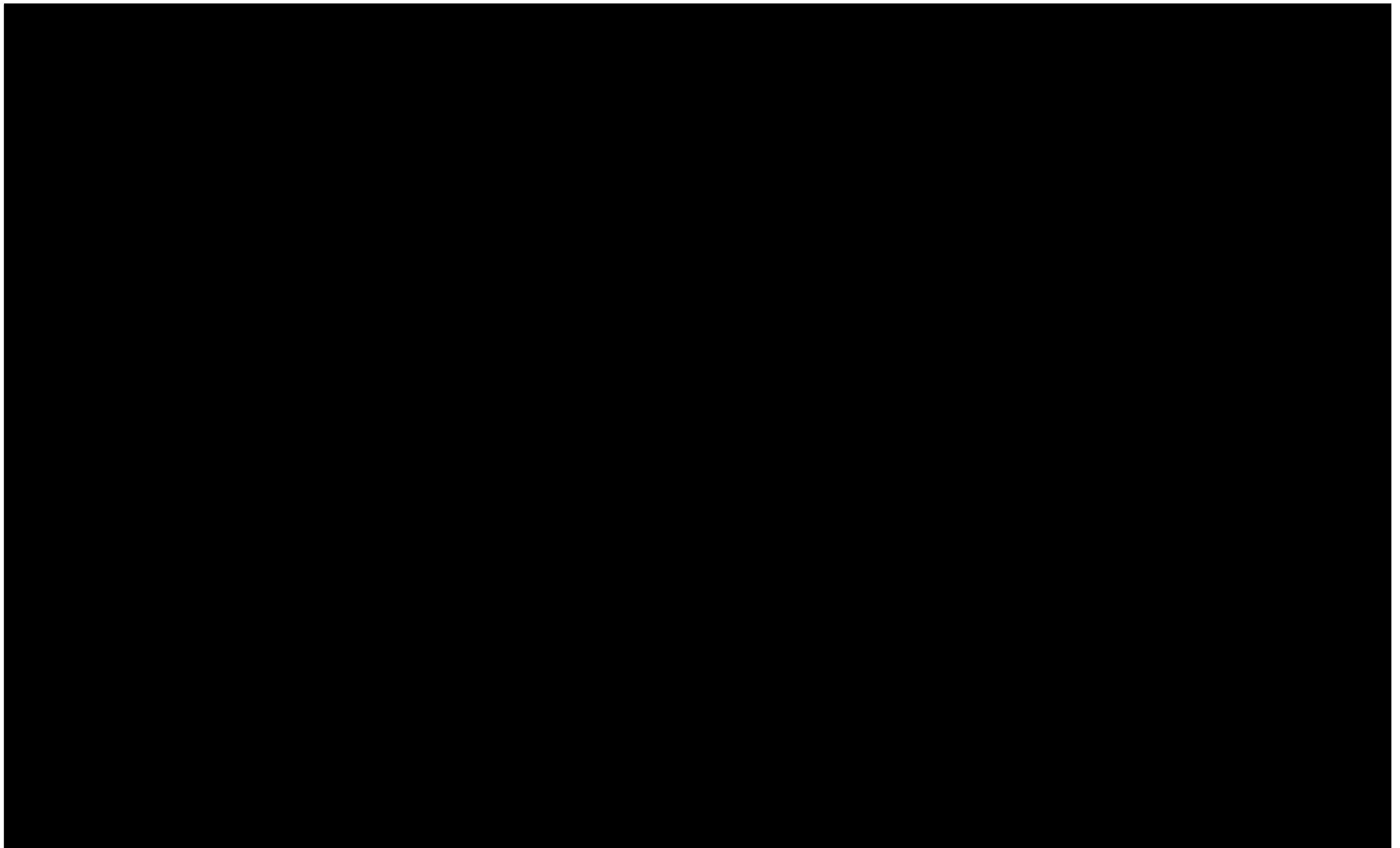


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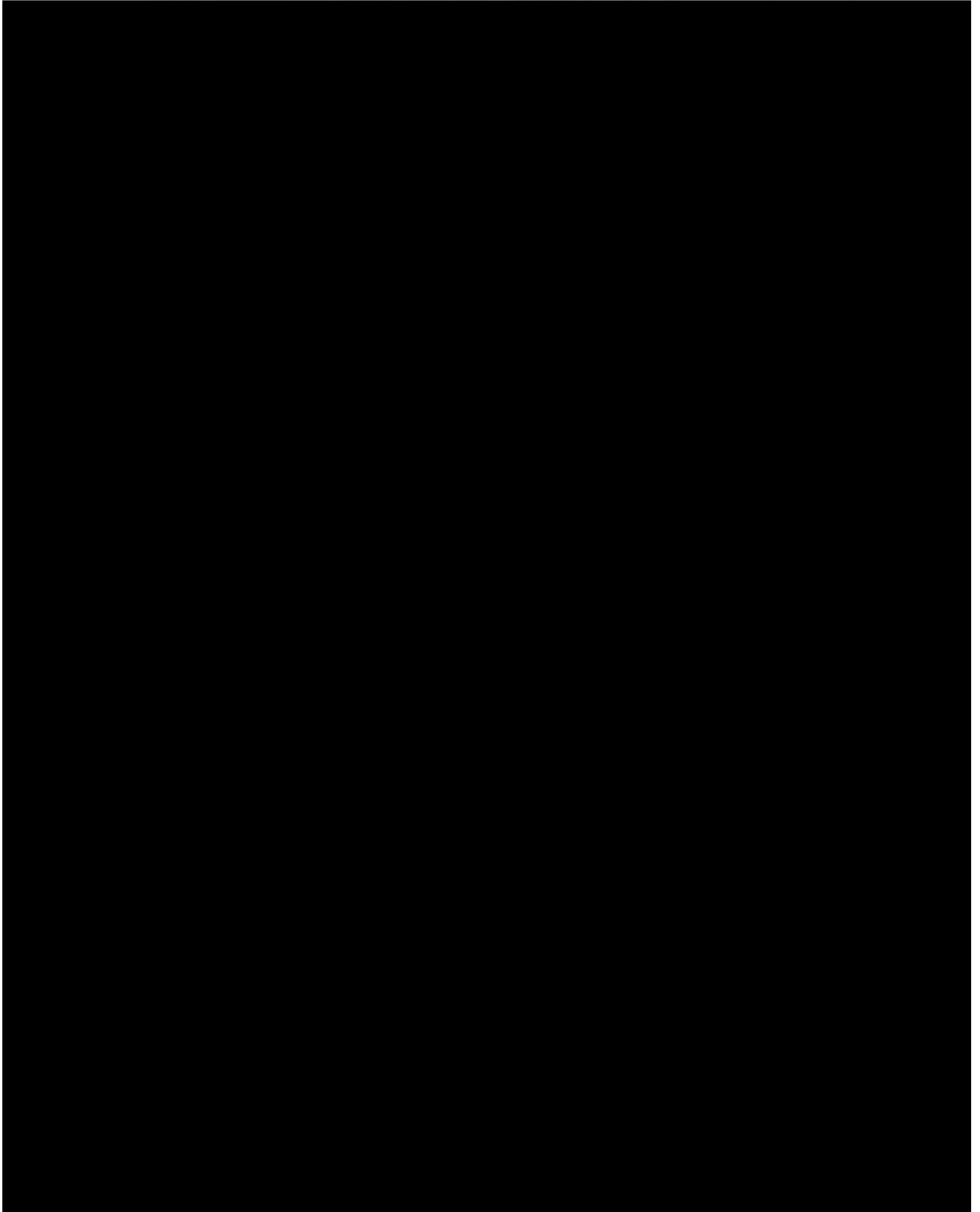


30(b)(6) Topic 8(b) / Freeman RFP 7 - DV360



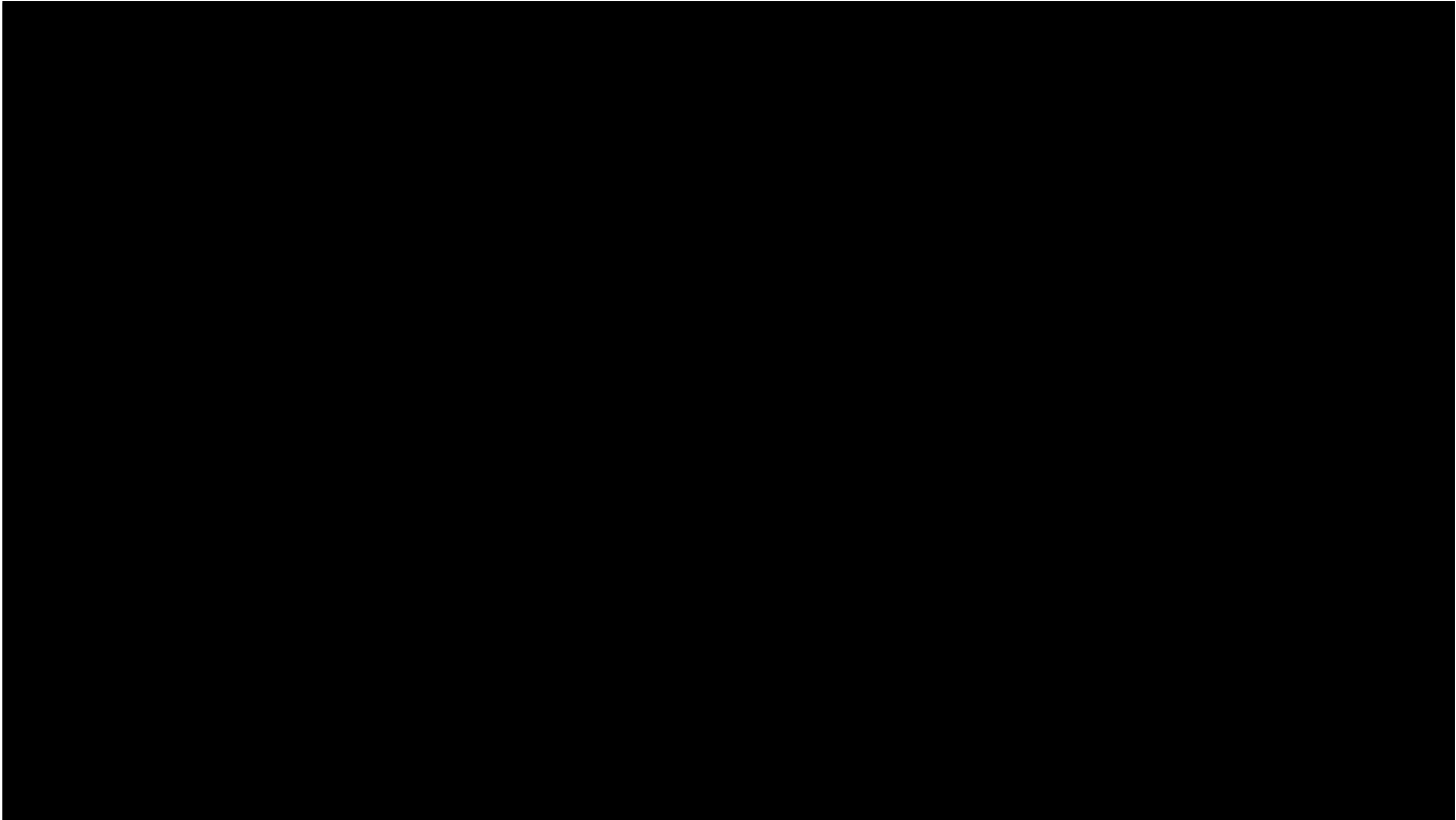
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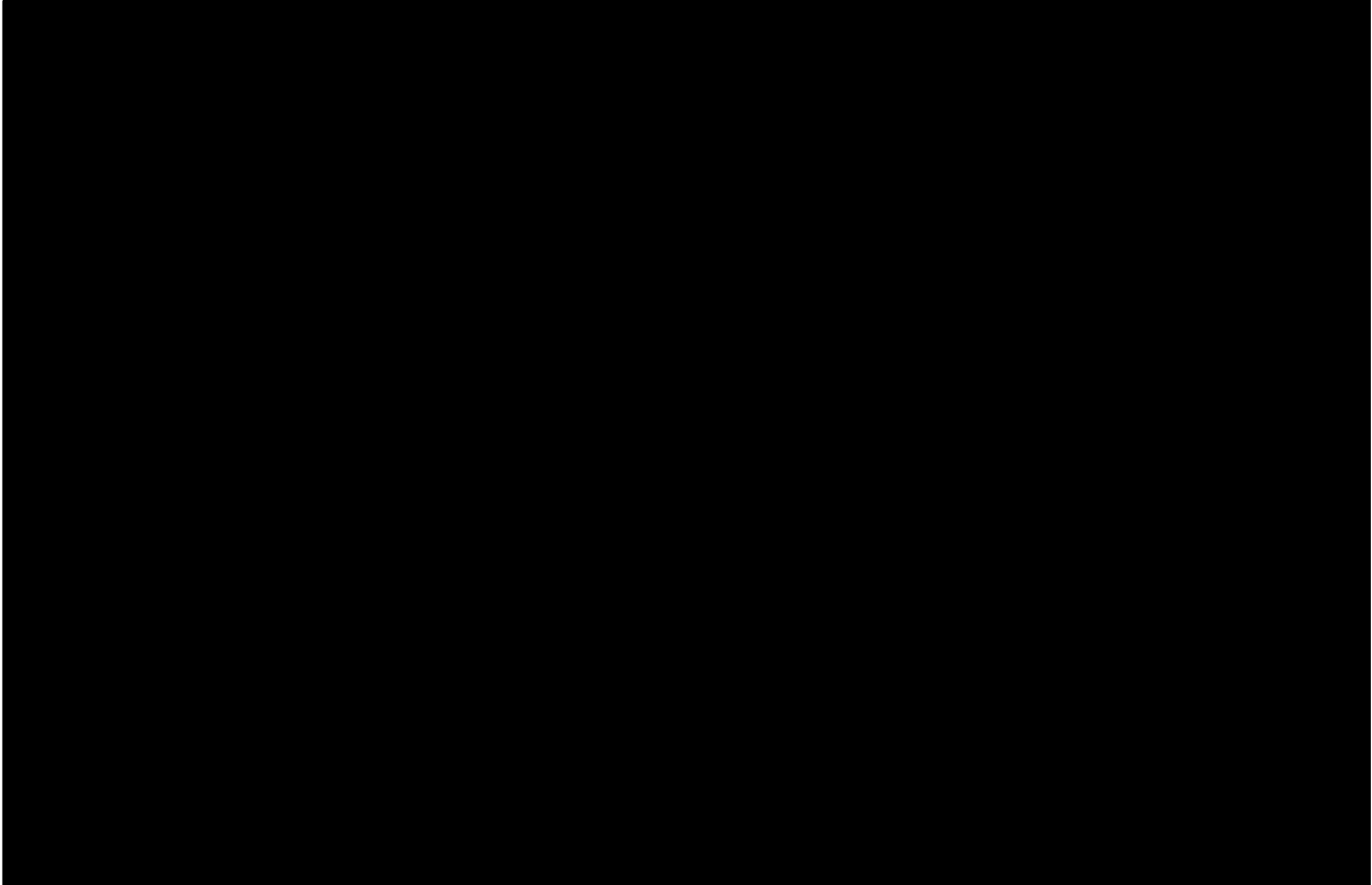


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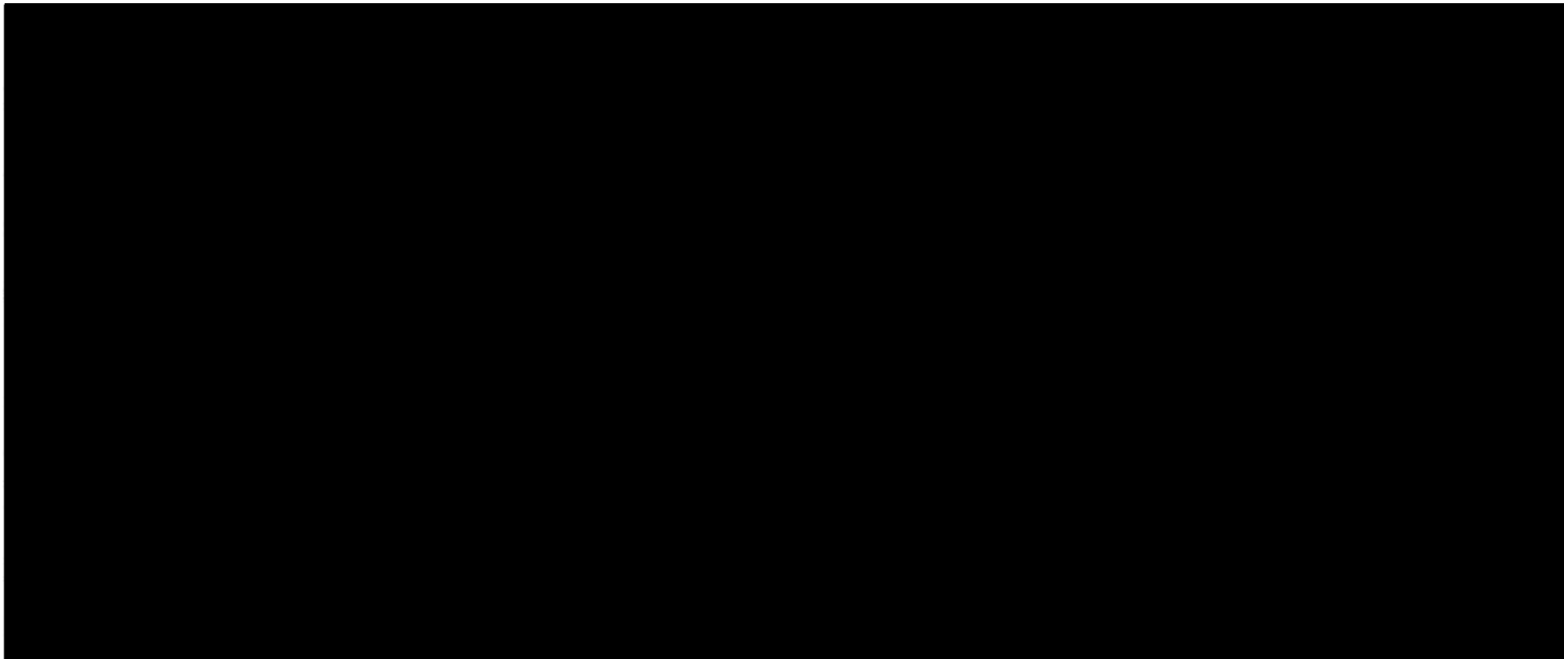


30(b)(6) Topic 8(c) / Freeman RFP 7 - XP Daily

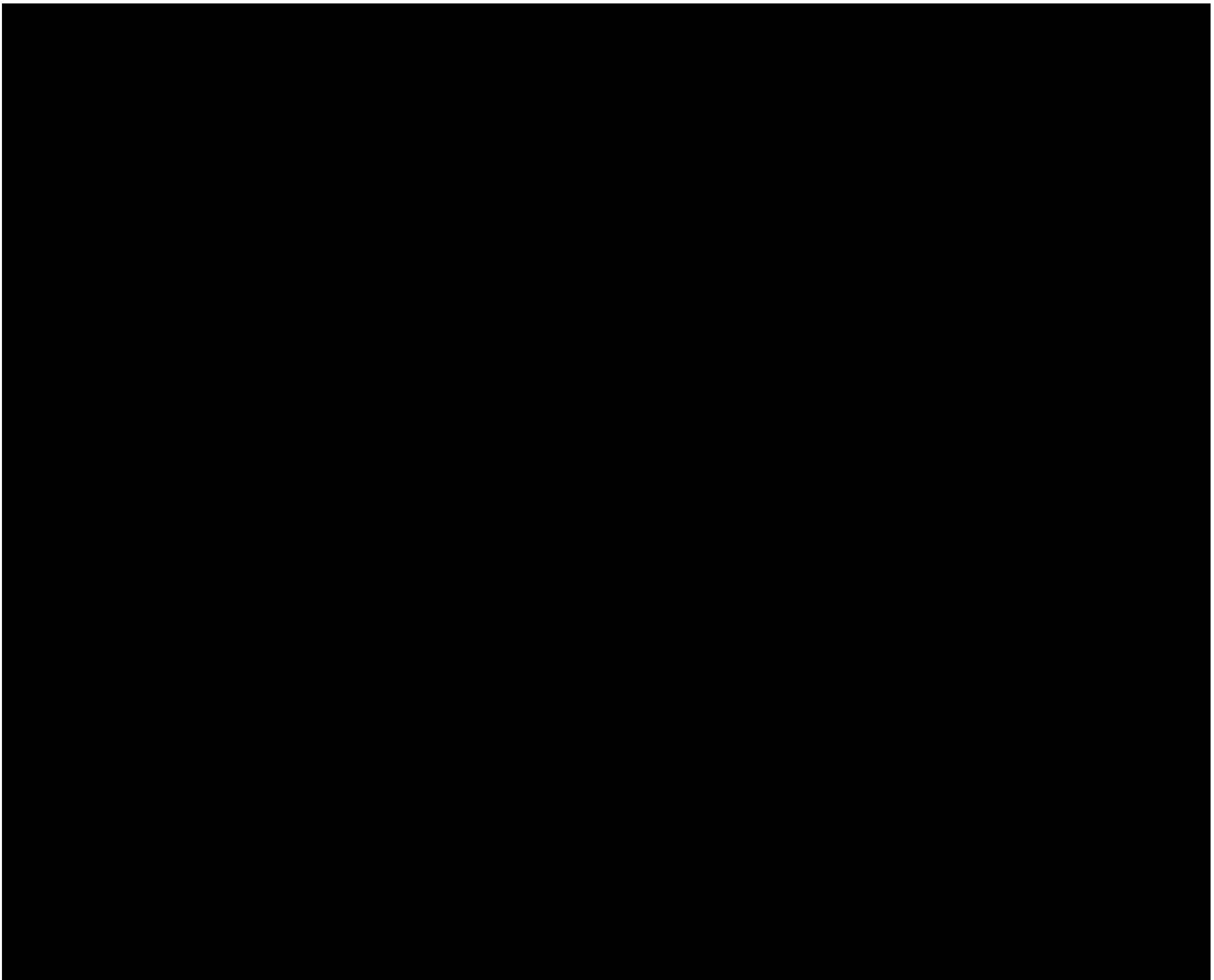


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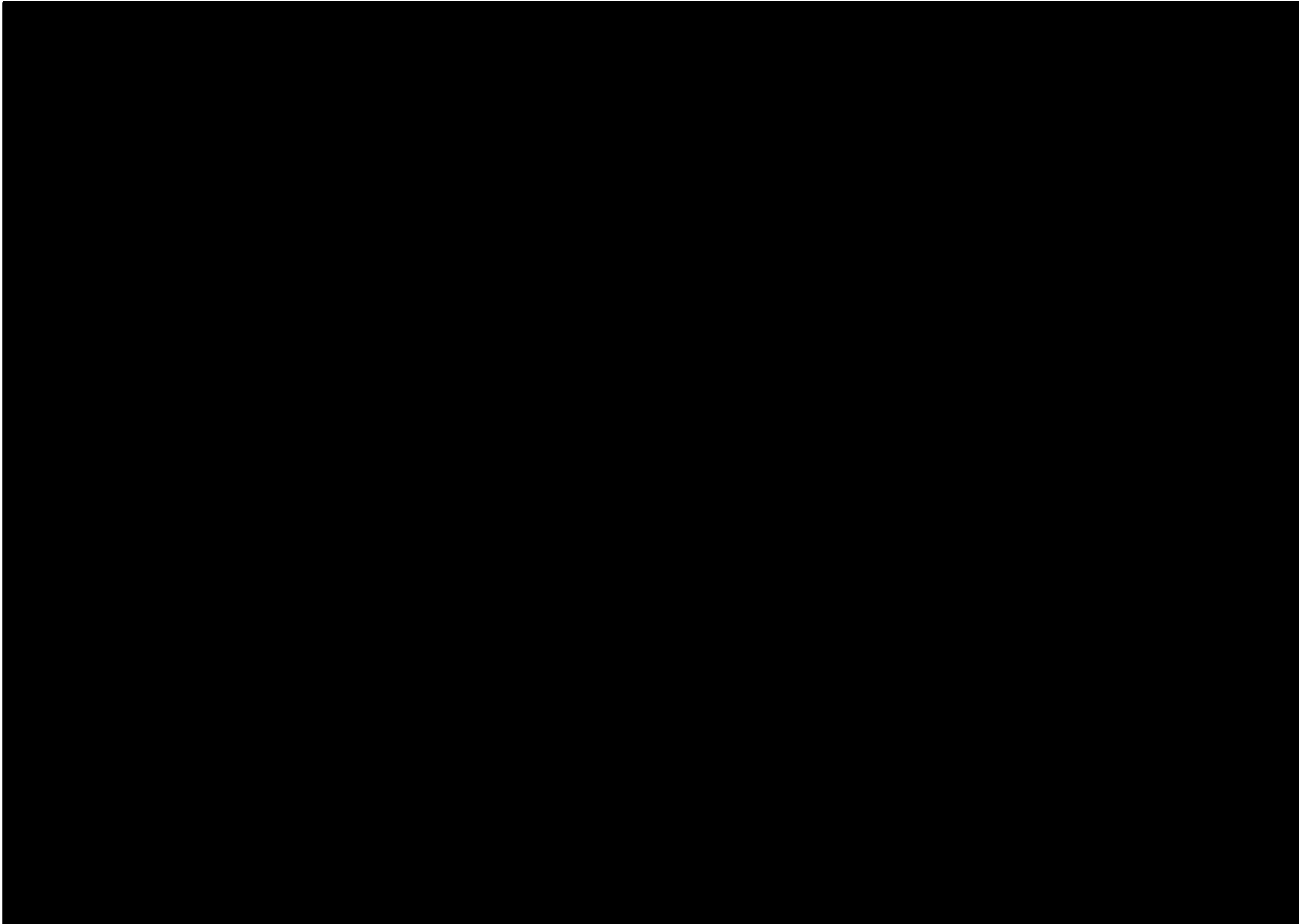


30(b)(6) Topic 8(d) / Freeman RFP 7 - DV360 XBridge

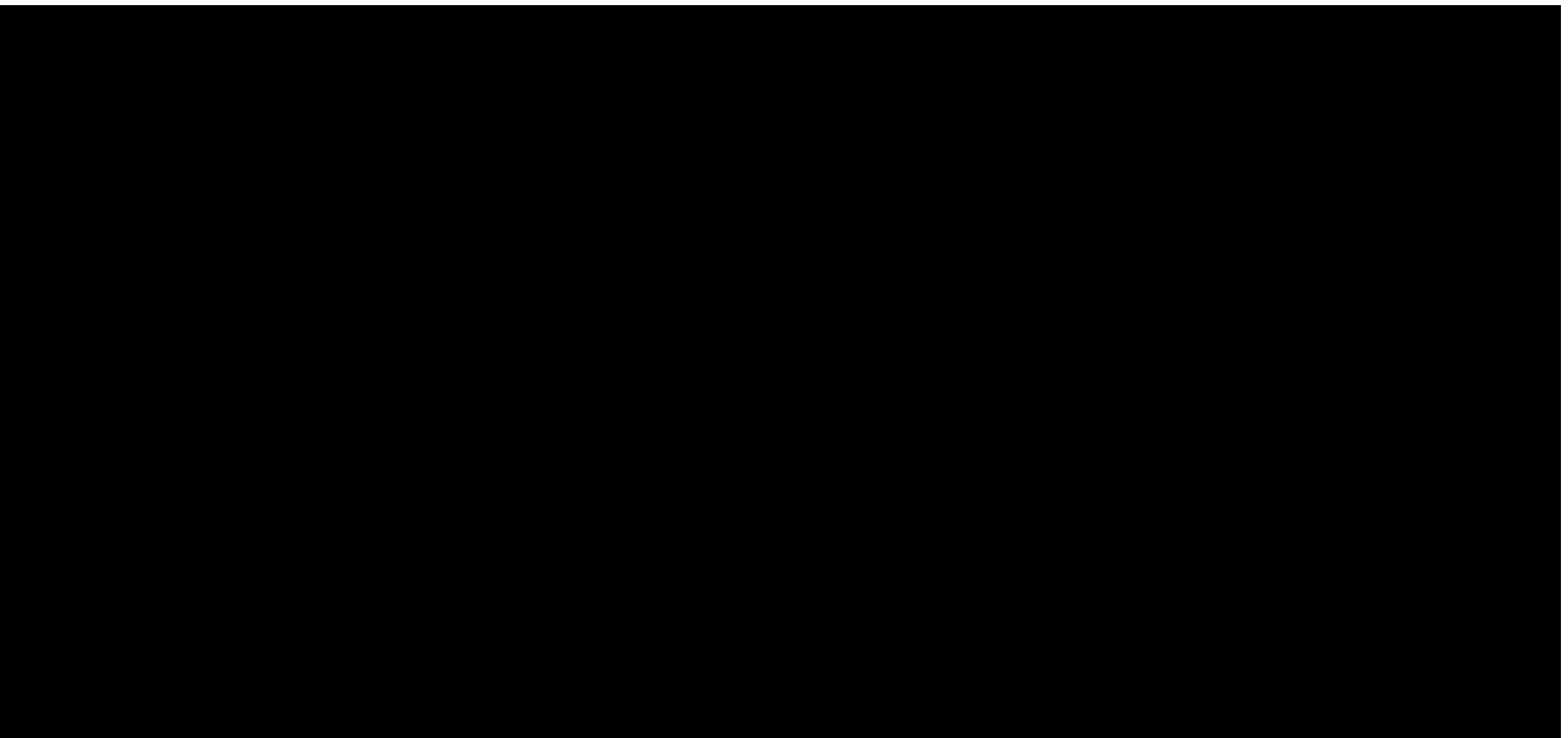


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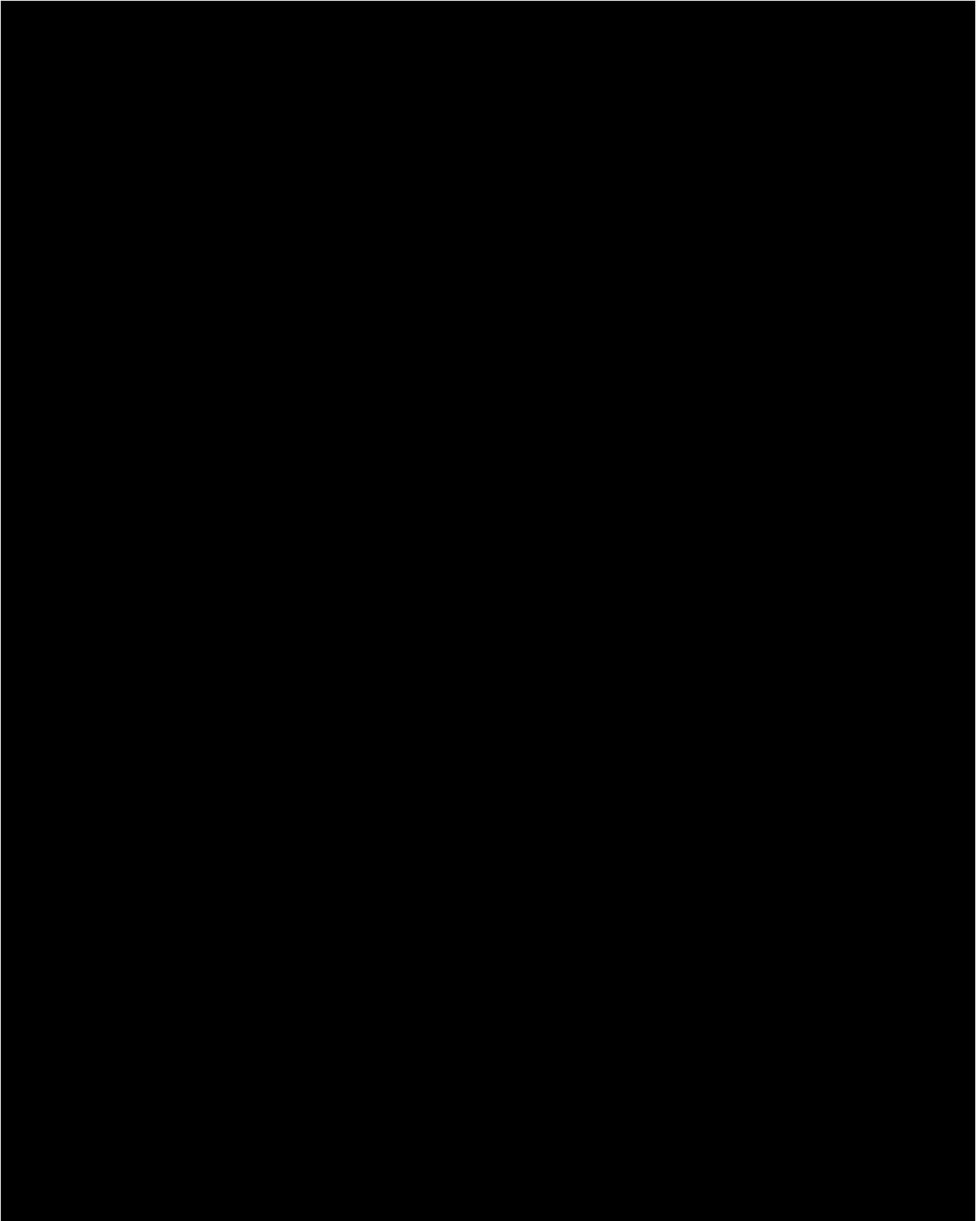


30(b)(6) Topic 8(e) / Freeman RFP 7 - AdX



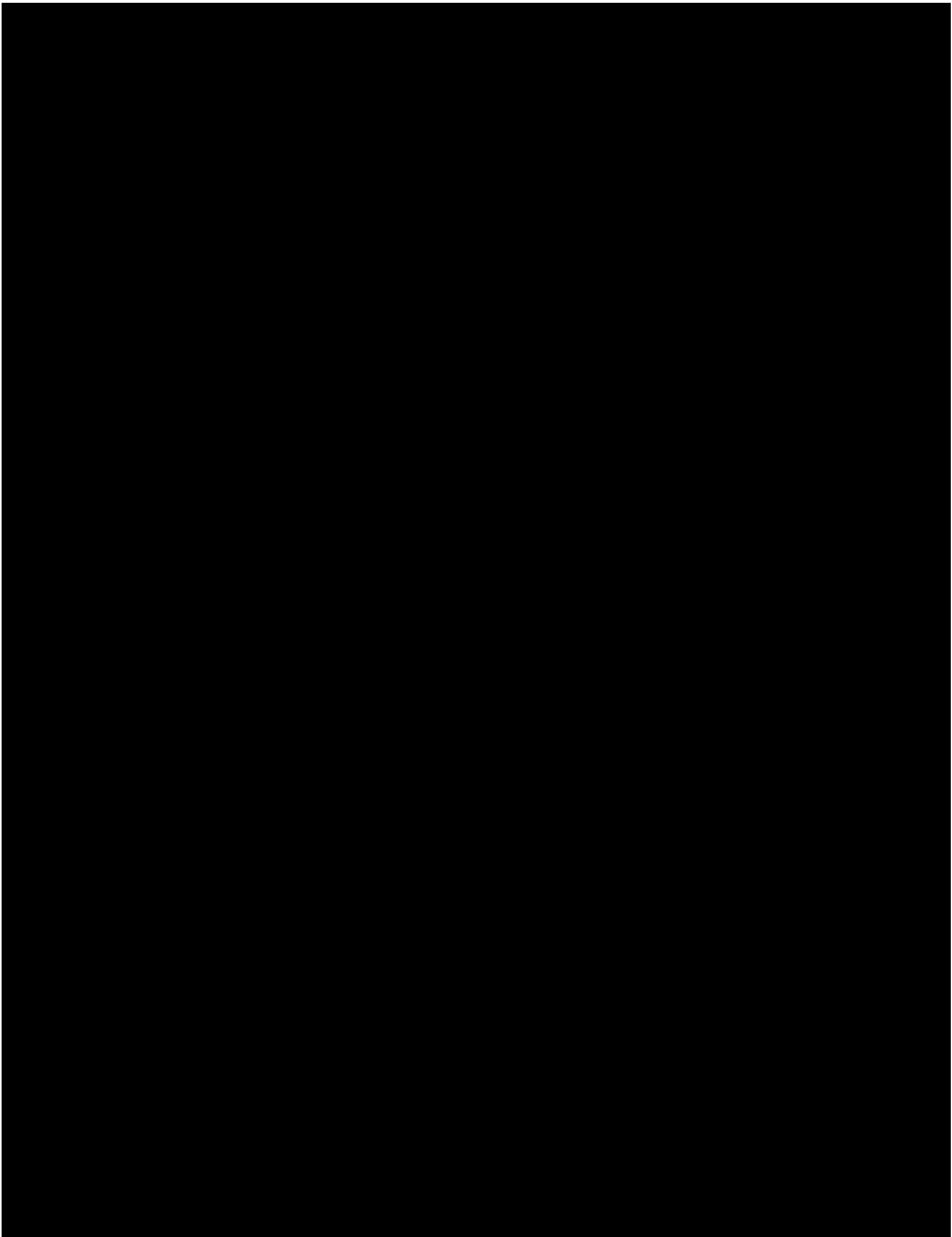
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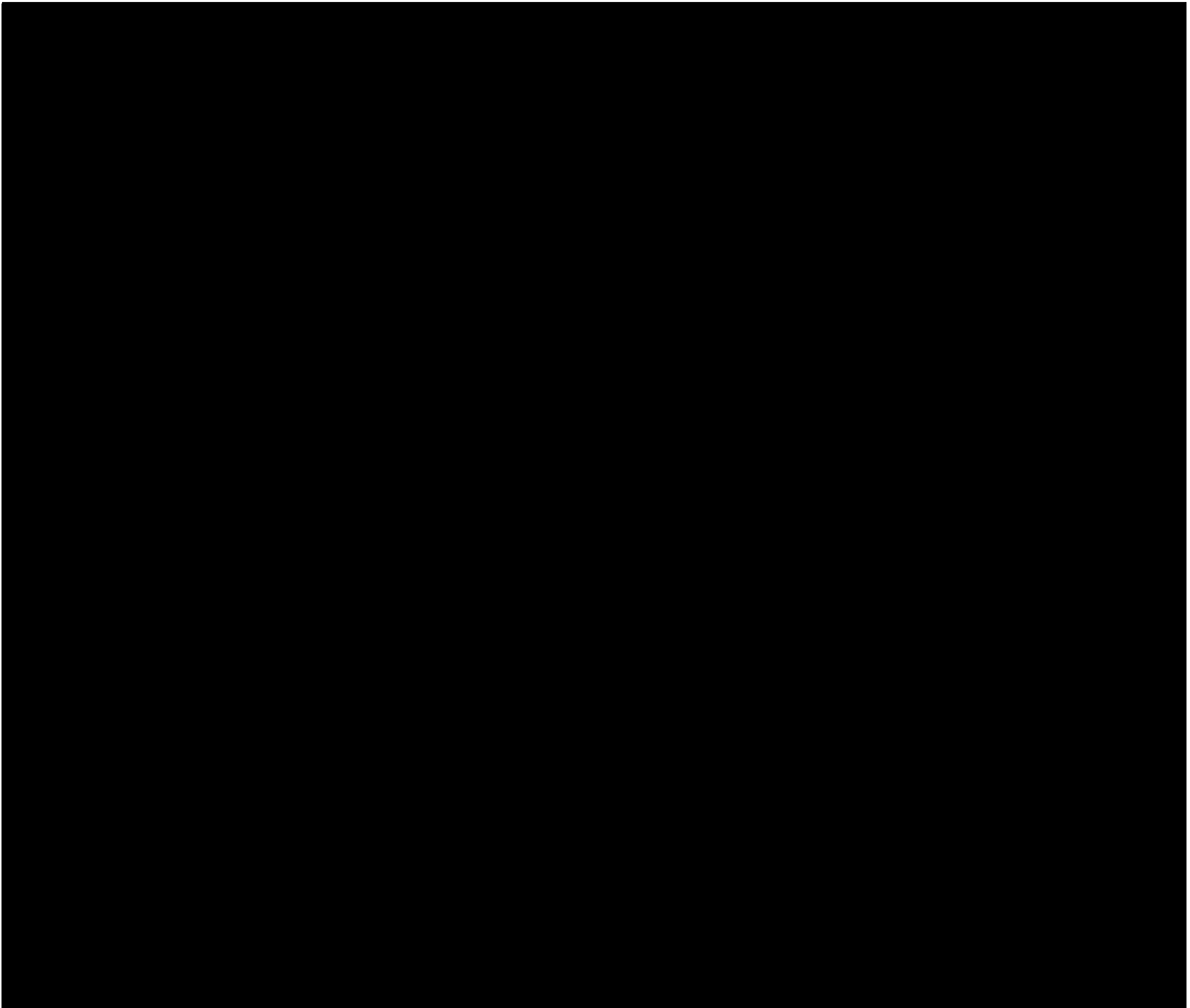
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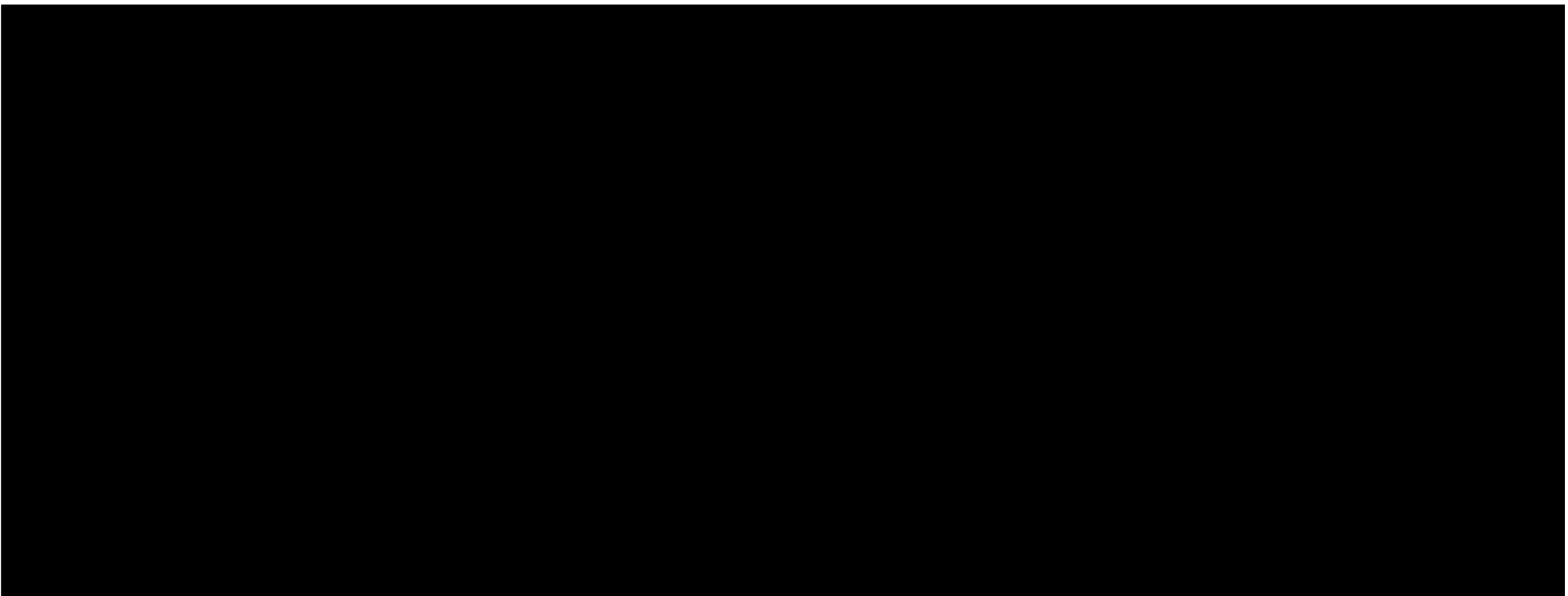


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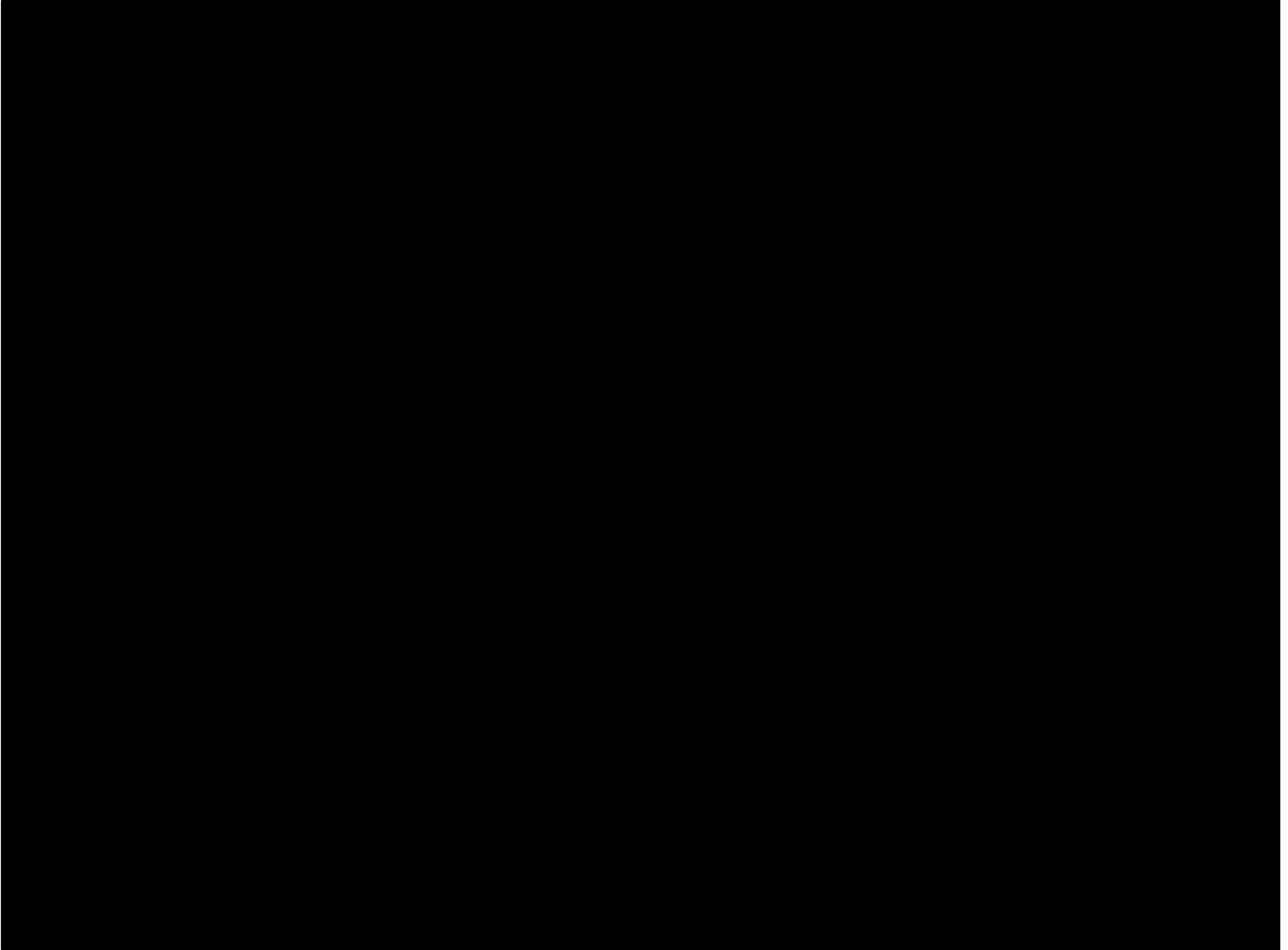
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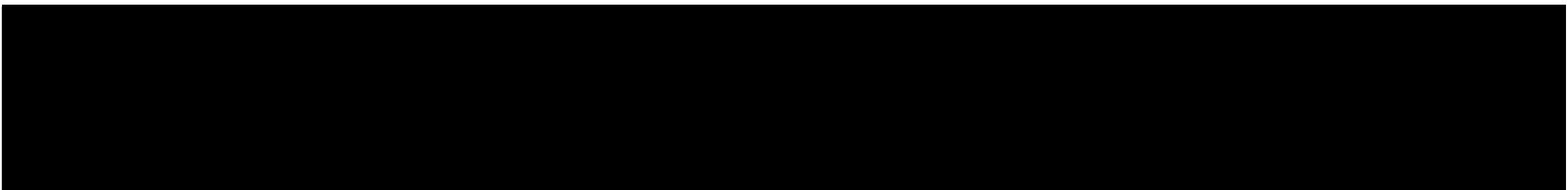
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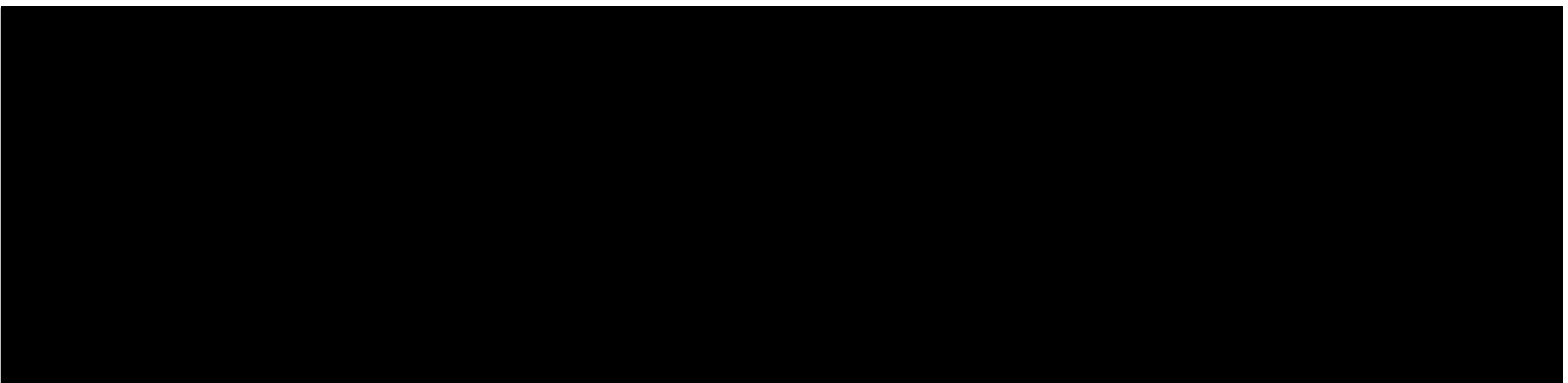
30(b)(6) Topic 8(g) / Freeman RFP 51



30(b)(6) Topic 8(i) / Freeman RFP 52

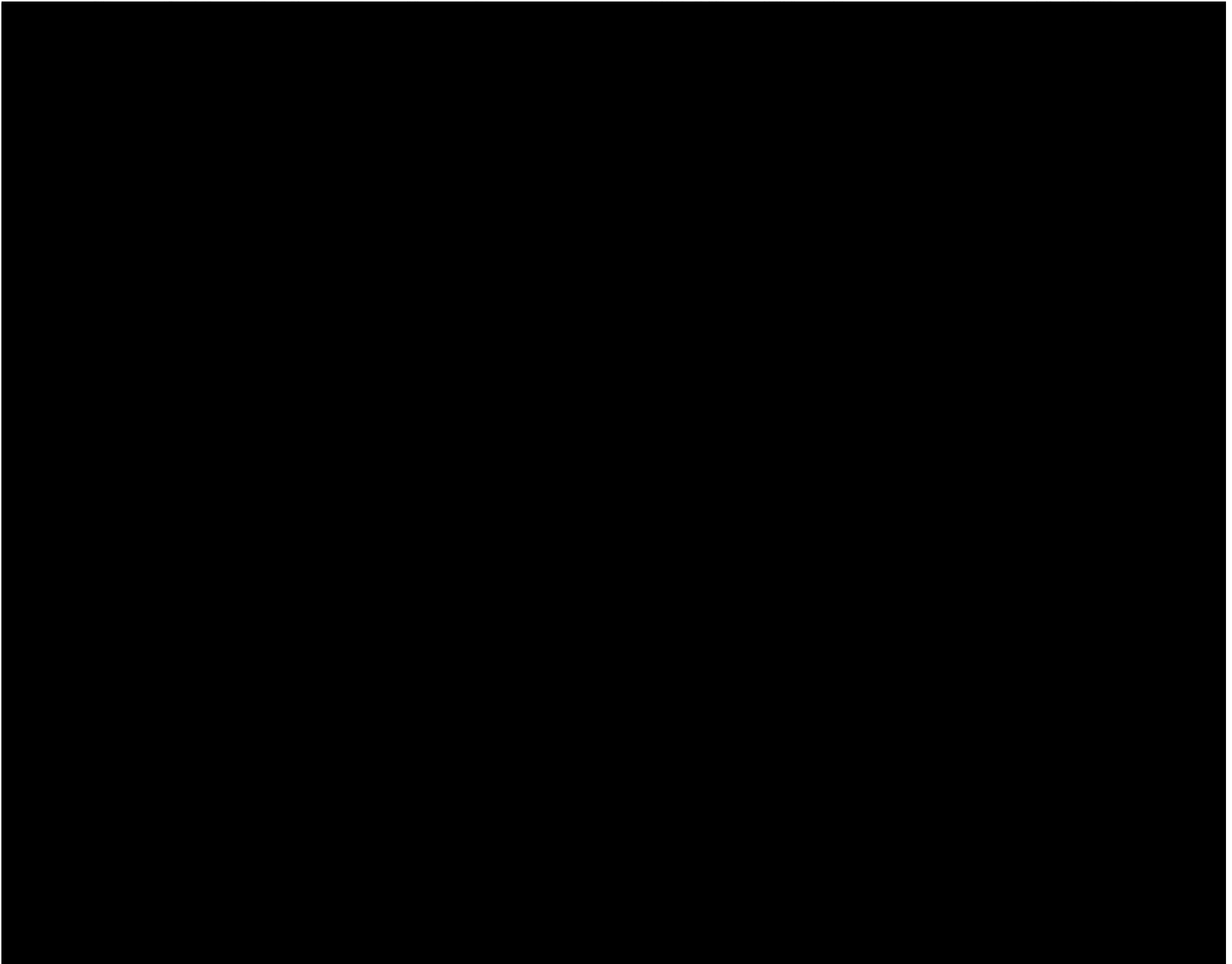


30(b)(6) Topic 8(j) / Freeman RFP 54

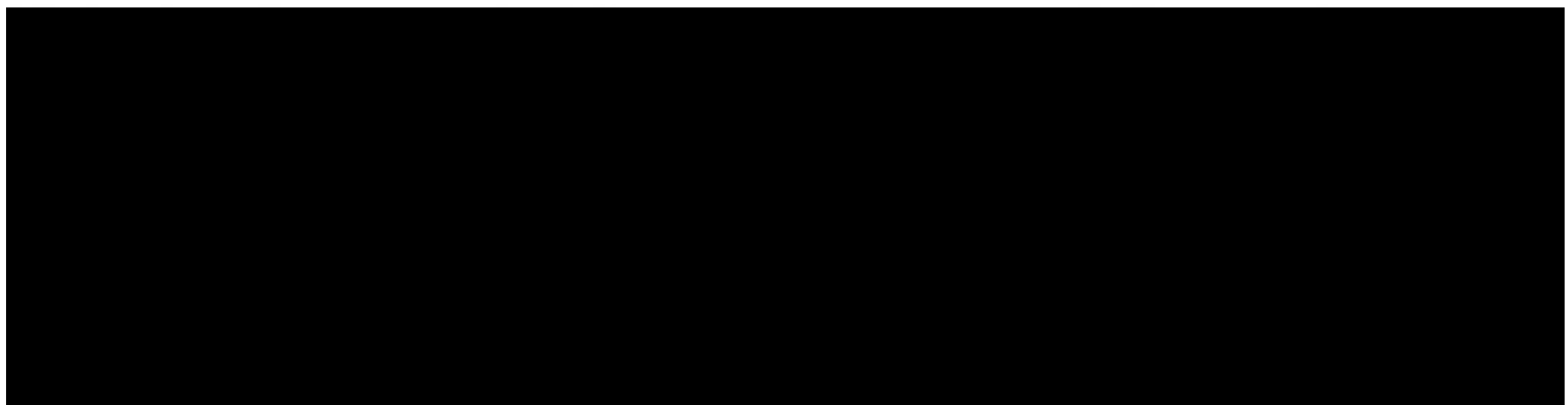


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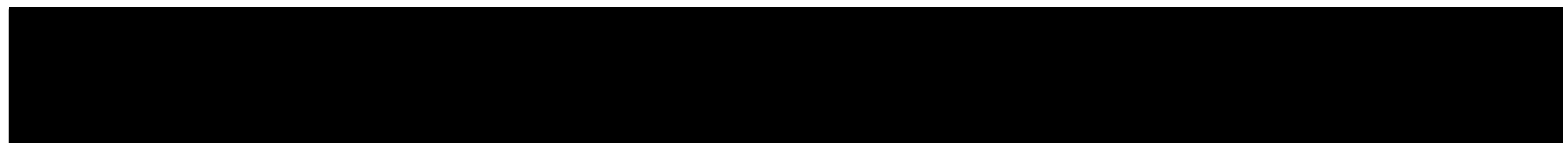
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30(b)(6) Topic 8(k) / Freeman RFP 55 - Buy-side Data

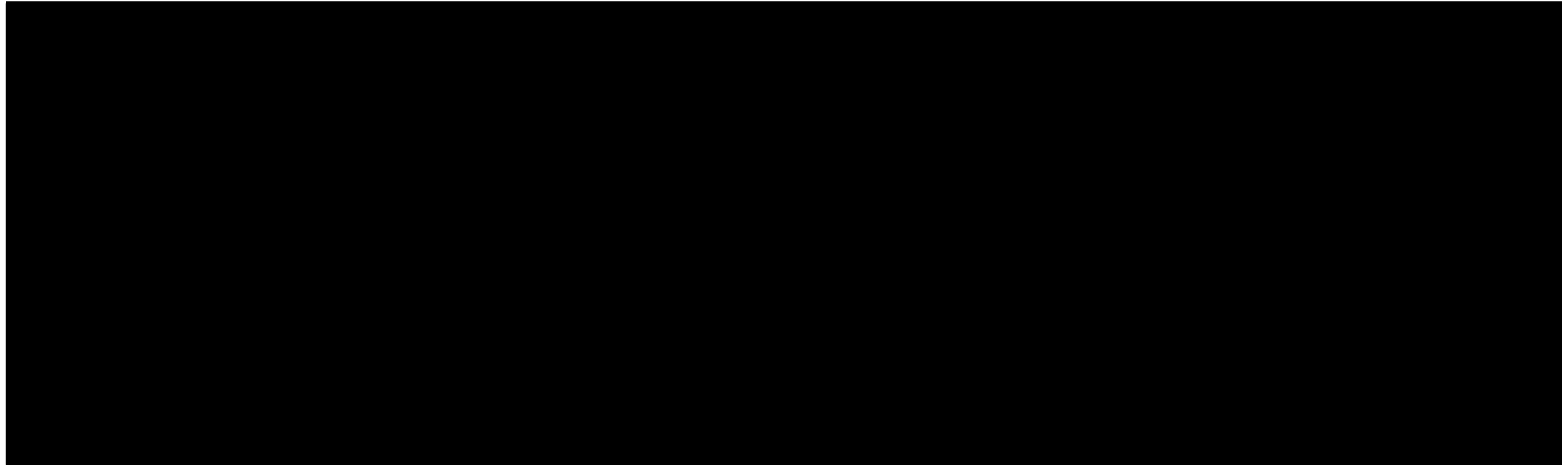


30(b)(6) Topic 8(l) / Freeman RFP 55 - Sell-side Data



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30(b)(6) Topic 8(m) / Freeman RFP 55- Sell-side gross and net data



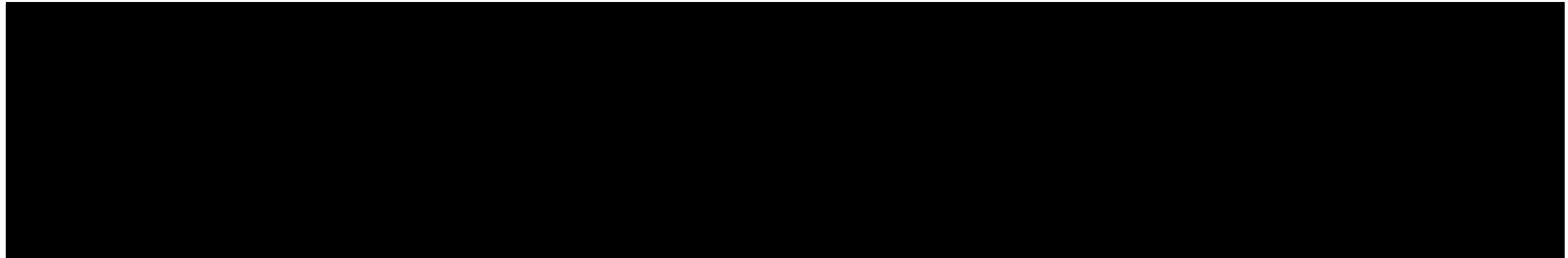
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Topic 9

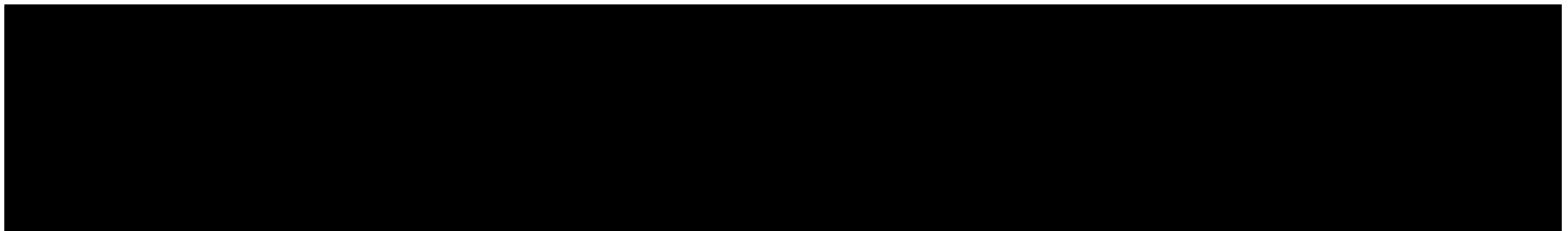
Topic 9(a)

The use of the information and data contained in each dataset by Google's employees and executives in the ordinary course of Google's business;



Topic 9(b)

The individual sources of information from which data was pulled, extracted, copied, or otherwise derived from each dataset including whether all fields and data from those individual sources of information were included in the [REDACTED] data sets;



Topic 9(c)

The processes of pulling, assembling, and quality-checking these datasets as described in part in the July 28, 2023, letter from David Pearl to Michael J. Freeman; and

In lieu of testimony, Google is willing to enter a mutually acceptable stipulation as to the authenticity of the data included in: (1) the [REDACTED] dataset produced on July 28, 2023 as GOOG-AT-EDVA-DATA-000012607 to GOOG-AT-EDVA-DATA-000072606; (2) the [REDACTED] dataset produced on August 10, 2023 as GOOG-AT-EDVA-DATA-000072607 to GOOG-AT-EDVA-DATA-000147606; and (3) the [REDACTED] dataset produced on August 22, 2023 as GOOG-AT-EDVA-DATA-000147607 to GOOG-AT-EDVA-DATA-000226014.

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We propose the following language:

Google stipulates that GOOG-AT-EDVA-DATA-000012607 to GOOG-AT-EDVA-DATA-000072606 ([REDACTED]); GOOG-AT-EDVA-DATA-000072607 to GOOG-AT-EDVA-DATA-000147606 ([REDACTED]); and GOOG-AT-EDVA-DATA-000147607 to GOOG-AT-EDVA-DATA-000226014 ([REDACTED]) represent true and accurate copies of data from the sources identified in Appendix B to its October 6, 2023 letter,

[REDACTED]

Topic 9(d)

The definition of each field, variable, column, and/or value in each dataset including examples of ad formats contained in the data.

With regard to Topic(d), definitions of each field in the [REDACTED] datasets are included in Appendix A. As indicated in our objections to Plaintiffs' 30(b)(6) deposition notice, we note that Google has already provided information about the fields in the [REDACTED] data sets that Google previously provided in Laura Onken's August 12, 2021, November 2, 2021, and November 19, 2021 emails to John Hogan; Julie Elmer's October 7, 2021, March 31, 2022, June 23, 2022, and August 19, 2022 letters to John Hogan; and Julie Elmer's October 14, 2022 and November 30, 2022 letters to George Nierlich.

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Topic 11

For the Header Bidding Monitor datasets listed and referenced in the July 14, 2023, letter from David Pearl to Kelly D. Garcia:

Topic 11(a)

The individual sources of information from which data was pulled, extracted, copied, or otherwise derived for each dataset (or version thereof) including whether all fields and data from those individual sources of information were included in the datasets;

The data produced as the “Header Bidding Monitor” dataset came from one table [REDACTED] All rows related to North America (region = “NA”) were produced. The source table contains additional fields that were not included in the production.

Topic 11(b)

The processes of pulling and assembling and, if applicable, quality-checking, the Header Bidding Monitor datasets;

In lieu of testimony, Google is willing to enter a mutually acceptable stipulation as to the authenticity of the data included in the Header Bidding Monitor dataset produced on July 7, 2023 as GOOG-AT-EDVA-DATA-000000006.

We propose the following language: “Google stipulates that GOOG-AT-EDVA-DATA-000000006 represents a true and authentic copy of data from [REDACTED] covering the time period June 2018 to March 2023 as of the day it was pulled.”

Topic 11(c)

A list of the fields and types of data available in the “DRX-Internal-Stats” datasets referenced in that July 14, 2023, letter;

Please see the DRX-Internal-Stats sample dataset produced along with the July 14, 2023 letter from David Pearl to Kelly D. Garcia (GOOG-AT-EDVA-DATA-000000389 - GOOG-AT-EDVA-DATA-000012506). For a Google ordinary-course data dictionary of DRX-Internal-Stats fields, see GOOG-AT-MDL-009777293.

Topic 11(d)

The ways Google employees and executives use the “DRX-Internal-Stats” datasets referenced that July 14, 2023, letter in the ordinary course of business;

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In the ordinary course, DRX-Internal-Stats is utilized in a large variety of reporting and analyses which serve to examine aggregate records of Google Ad Manager (GAM) “reservation” and “exchange” line item transactions over time.⁷ For example, DRX-Internal-Stats can form the basis of analyses which are created as needed to answer questions related to GAM performance, or can be the input to dashboards providing graphical data summaries of GAM activity for dashboard users.

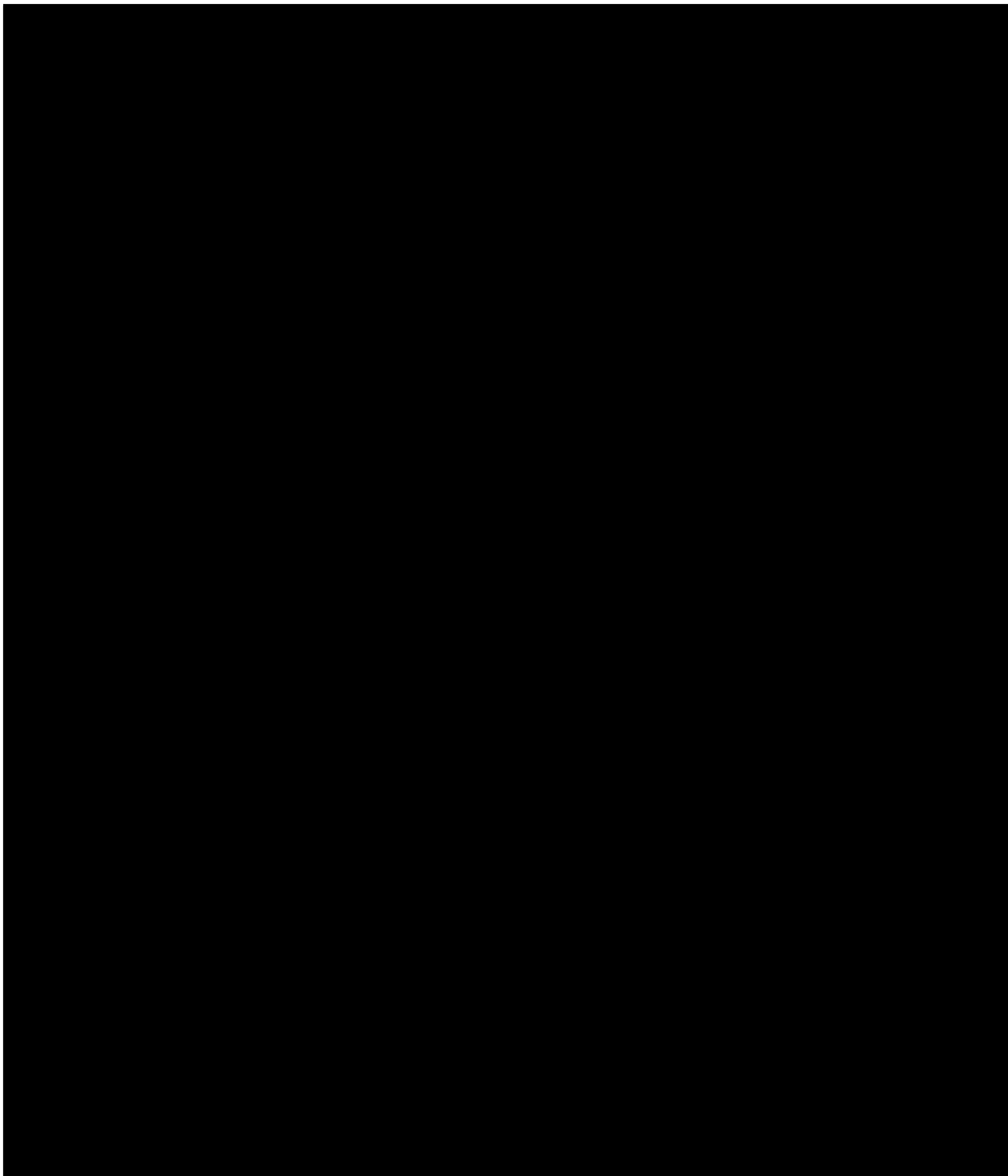
Topic 11(e)

A list of the fields and types of data available in the “Header-Bidding-Detection” datasets referenced in that July 14, 2023, letter;

Please see the Header-Bidding-Detection sample dataset produced along with the July 14, 2023 letter from David Pearl to Kelly D. Garcia (GOOG-AT-EDVA-DATA-000012507 - GOOG-AT-EDVA-DATA-000012606).

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Topic 11(f)

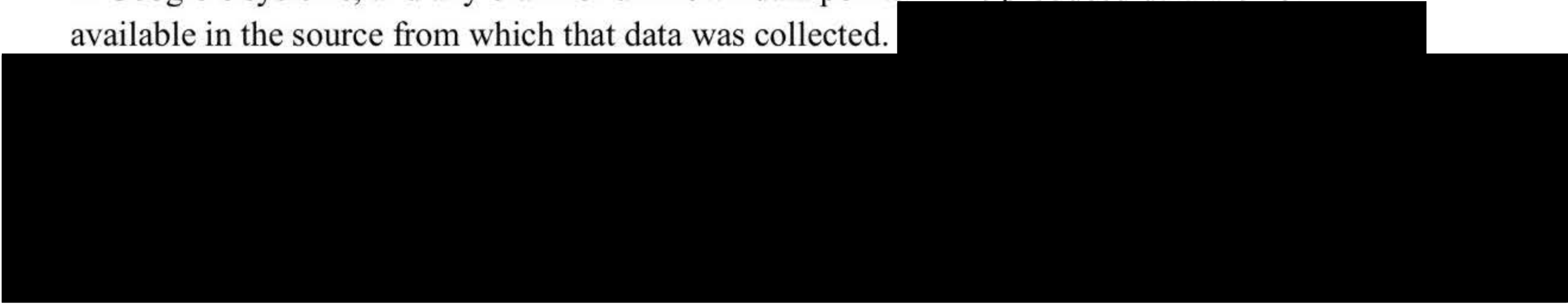
The ways Google employees and executives use the “Header-Bidding-Detection” datasets referenced that July 14, 2023, letter in the ordinary course of business;

As explained in the July 14, 2023 letter from David Pearl to Kelly D. Garcia, in the ordinary course, Header-Bidding-Detection is utilized by engineers for classifying GAM line items as header bidding. Header-Bidding-Detection on its own only attempts to classify whether existing line items created by publishers represent header bidding demand sources. The Header-Bidding-Detection table does not record whether those line items were actually transacted - i.e., bid on or won impressions. The Header-Bidding-Detection table needs to be merged with transactional data at the line item level (e.g., DRX-Internal-Stats) if a user wants to gauge how often Header Bidding impressions are transacted through Google’s publisher ad server GAM. Header-Bidding-Detection data is an input into the Header Bidding Monitor data/dashboard.

Topic 11(g)

Explanations of the cause(s), whether actual or likely causes, of missing network name and/or network parent name information in these datasets;

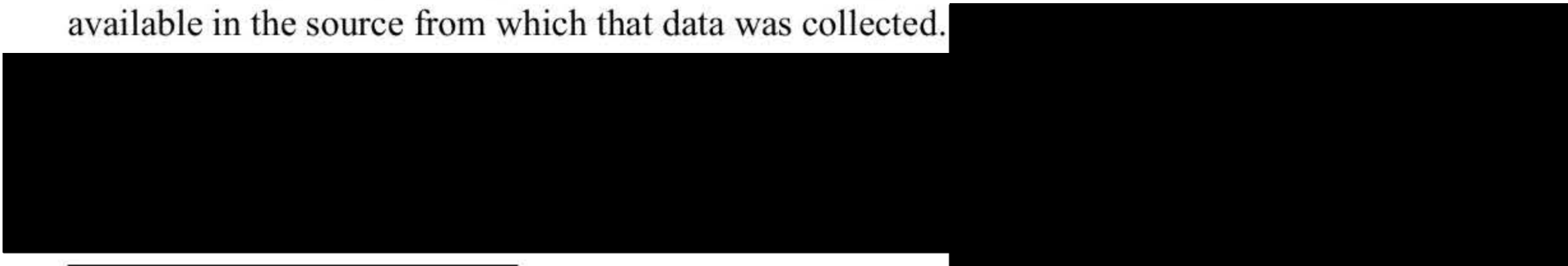
The Header Bidding Monitor data produced represents the ordinary course information recorded in Google’s systems, and any blank or unknown data points in the produced data are not available in the source from which that data was collected.



Topic 11(h)

Explanations of the cause(s), whether actual or likely causes, of missing reservation type information in these datasets; and

The Header Bidding Monitor data produced represents the ordinary course information recorded in Google’s systems, and any blank or unknown data points in the produced data are not available in the source from which that data was collected.



⁸ *Network_name* and *network_parent_name* are not present in the DRX-Internal-Stats and Header-Bidding-Detection datasets.

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Topic 11(i)

The ways Google employees and executives use the Header Bidding Monitor datasets, or any subset thereof, or the sources of data or information contained in these datasets in the ordinary course of Google's business.

In the ordinary course, the source of the production Header Bidding Monitor datasets is the source to a dashboard of the same name ("Header Bidding Monitor"). The dashboard provides users with the ability to create customized graphical summaries of Google Ad Manager activity, including Header Bidding classified transactional data. Examples of how the data has been used include understanding trends in header bidding adoption (see, e.g., GOOG-DOJ-04387378 at -380) and informing product development strategy for Google Ad Manager (see e.g., GOOG-DOJ-10296751 at -755-56).

* * *

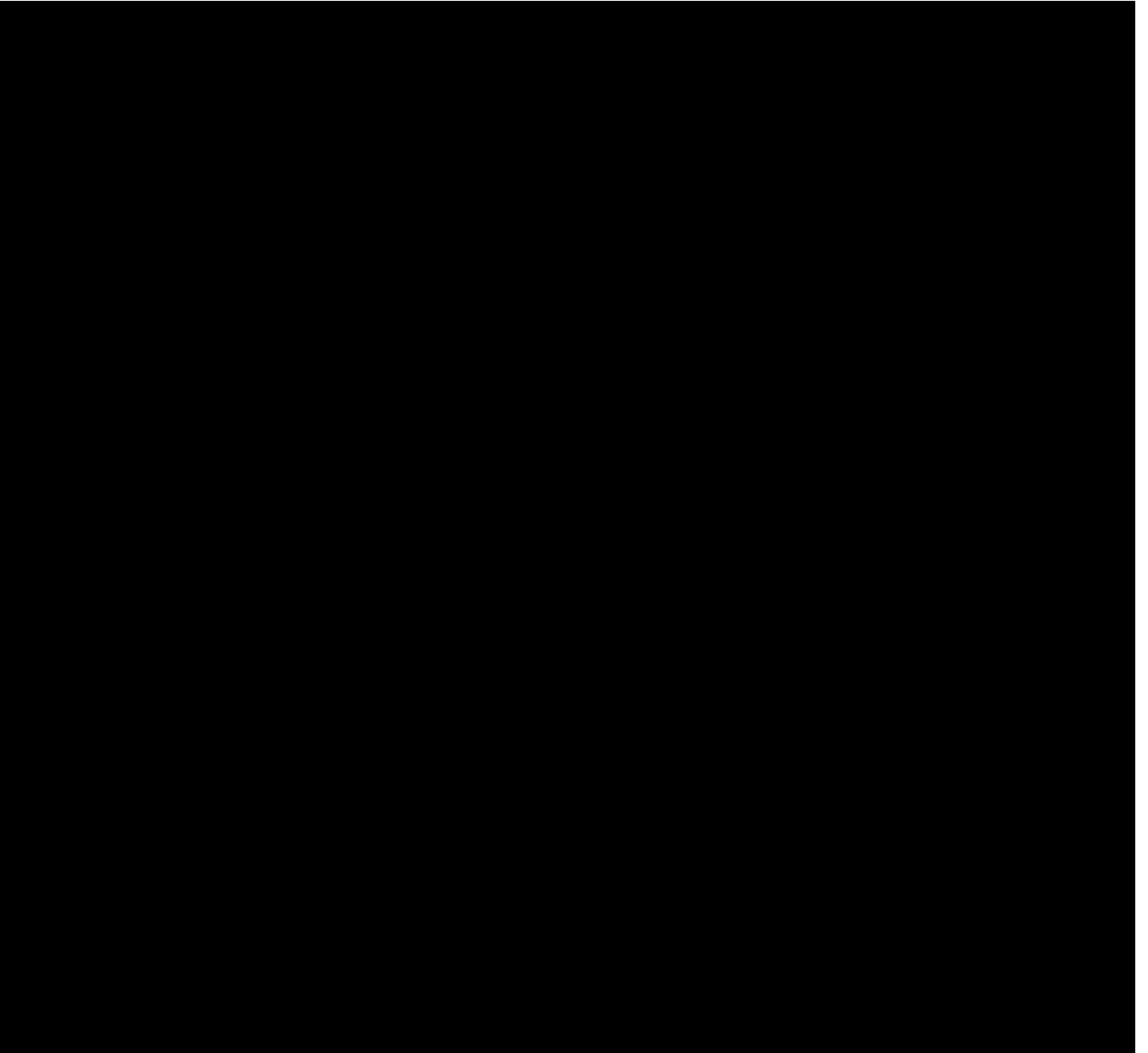
The contents of this letter are highly confidential and Google is marking this letter Highly Confidential consistent with the Modified Protective Order.

Regards,

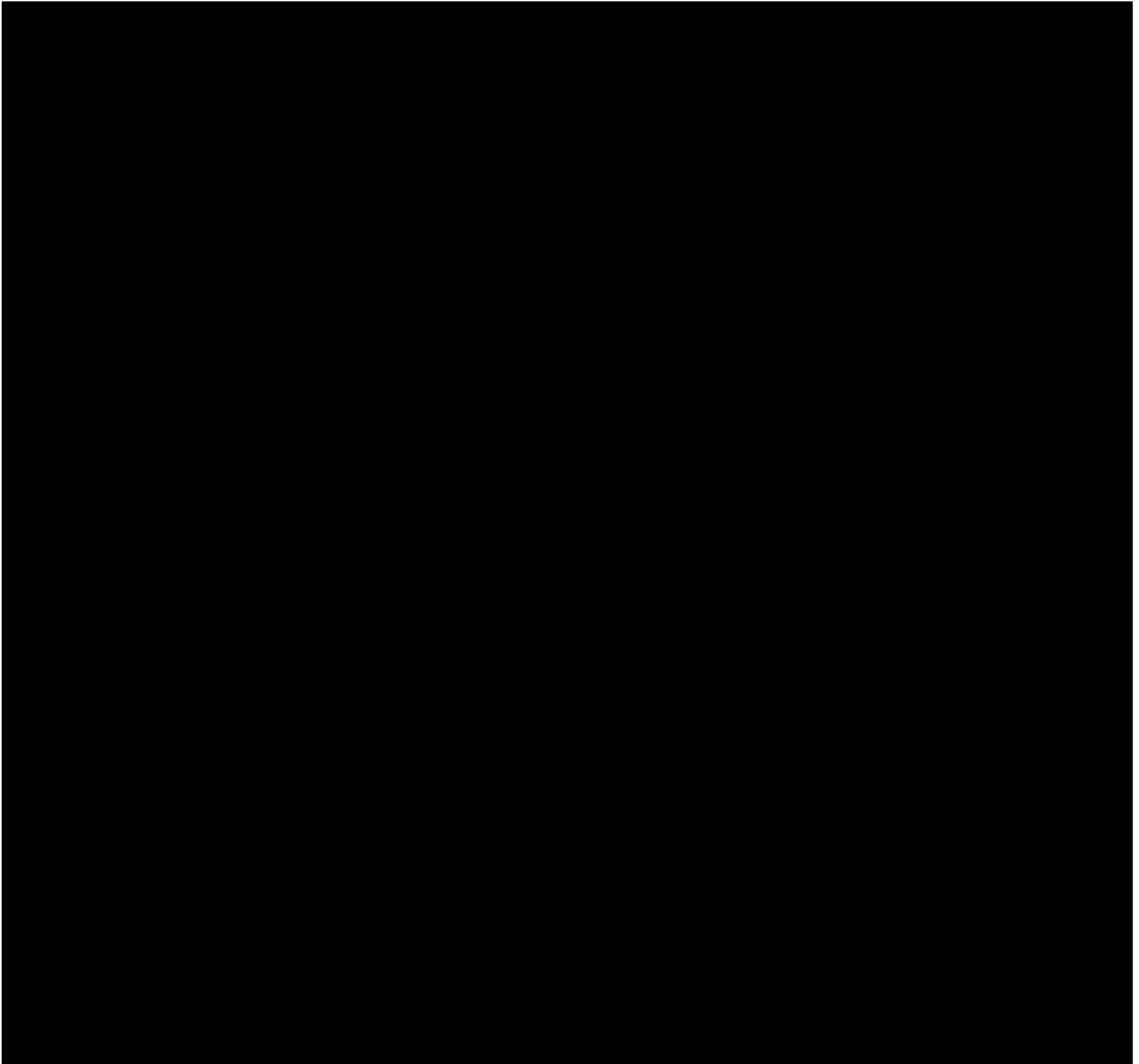


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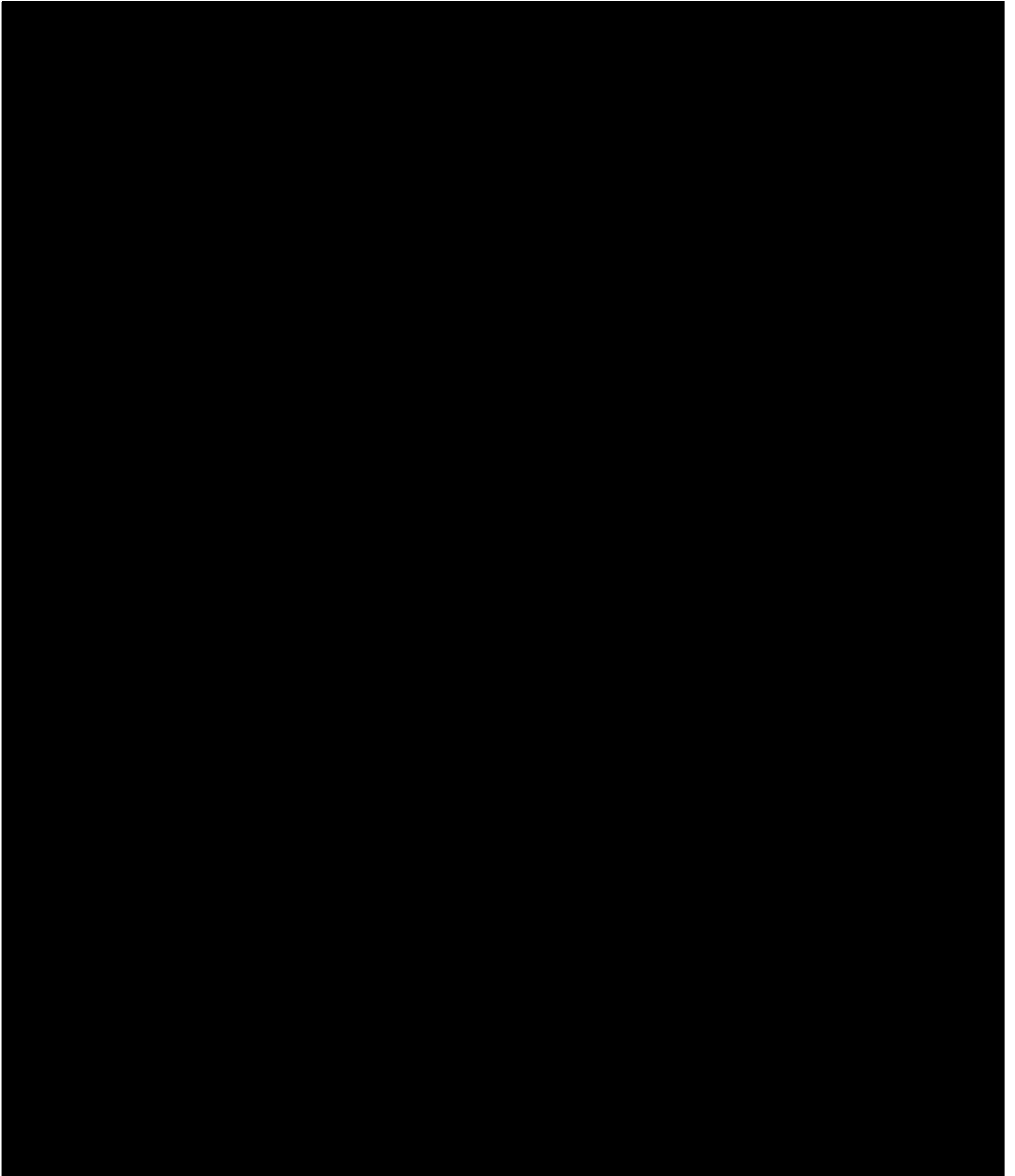
Appendix A: Data Field Definitions



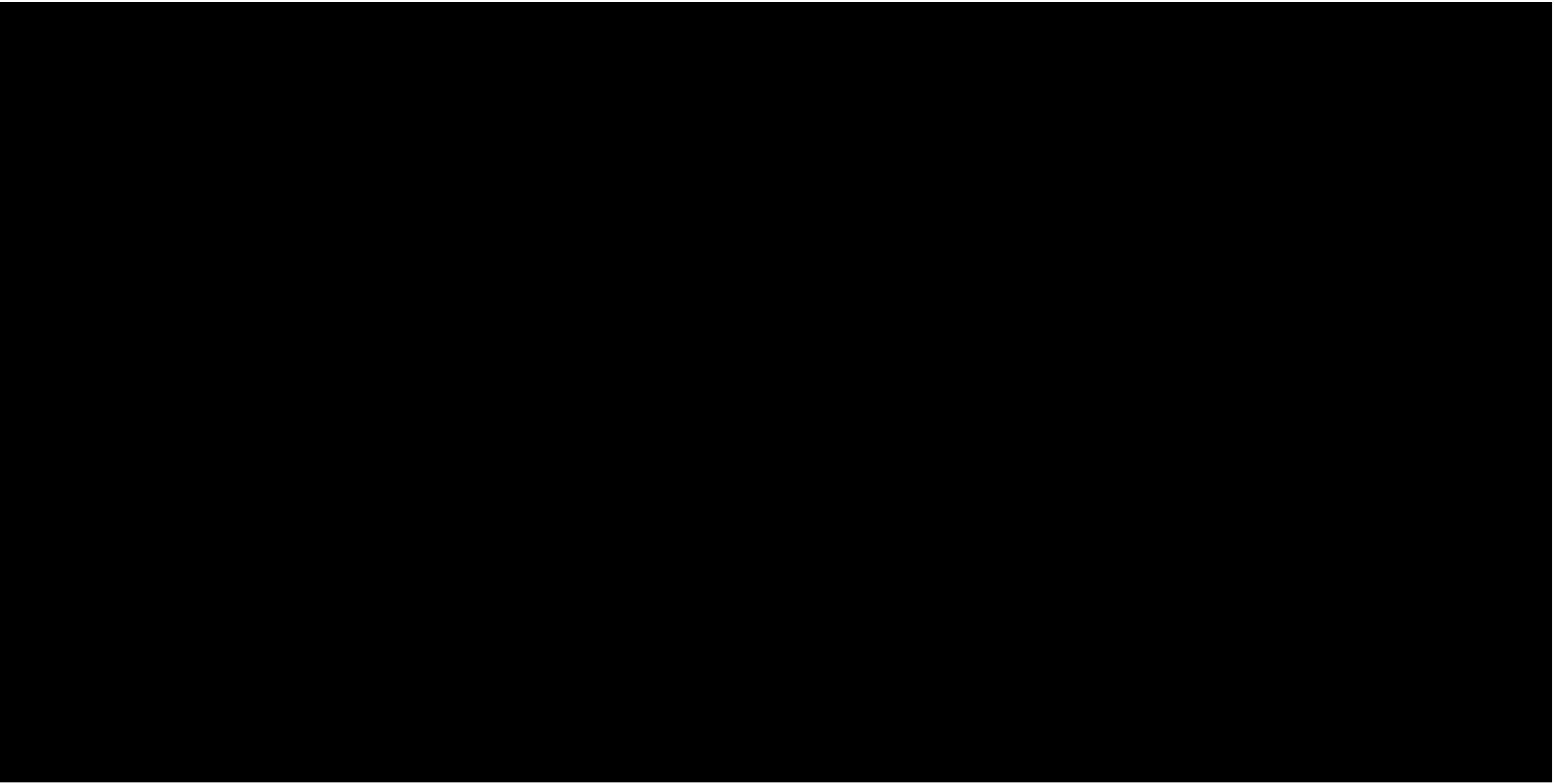
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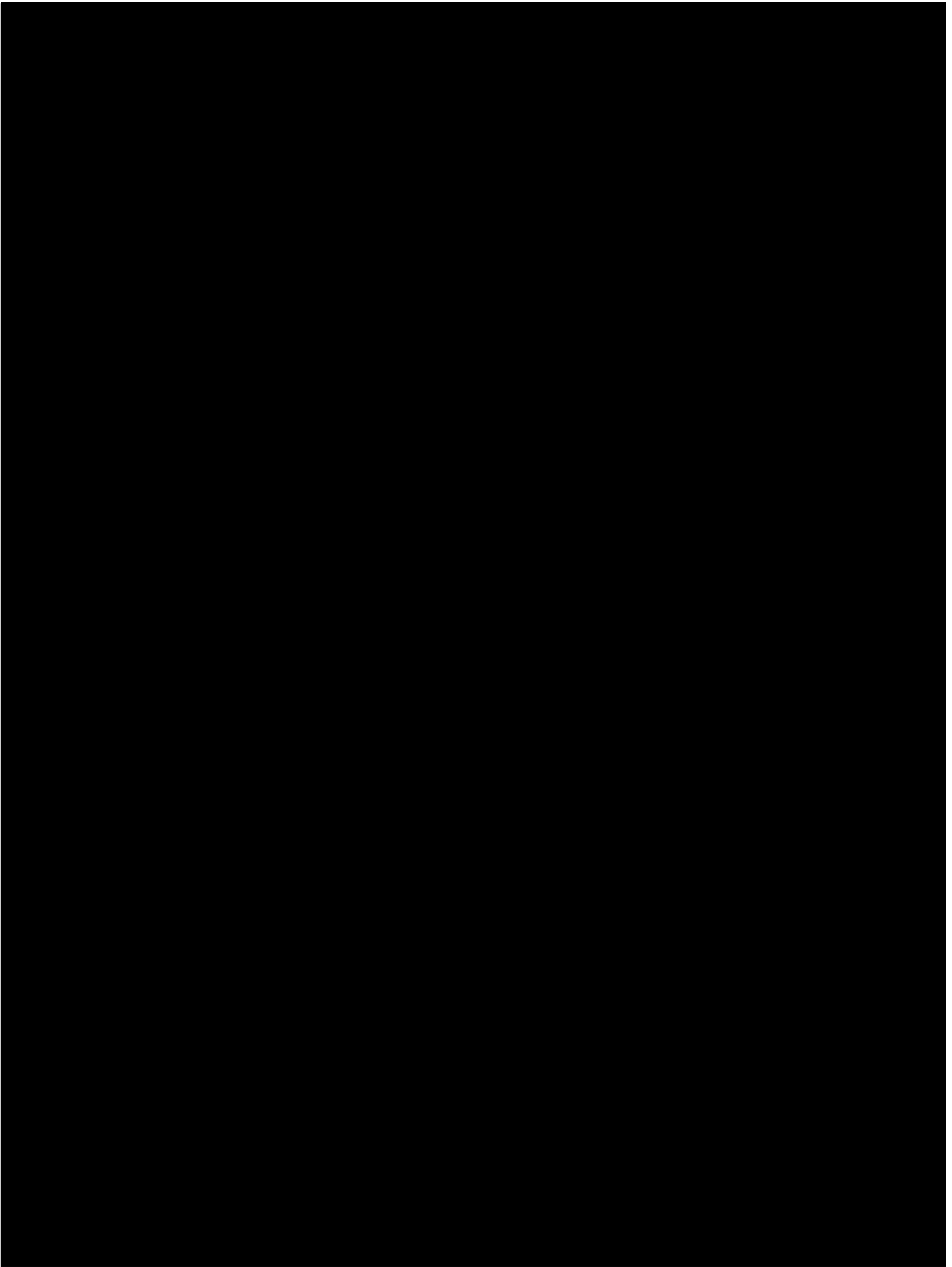
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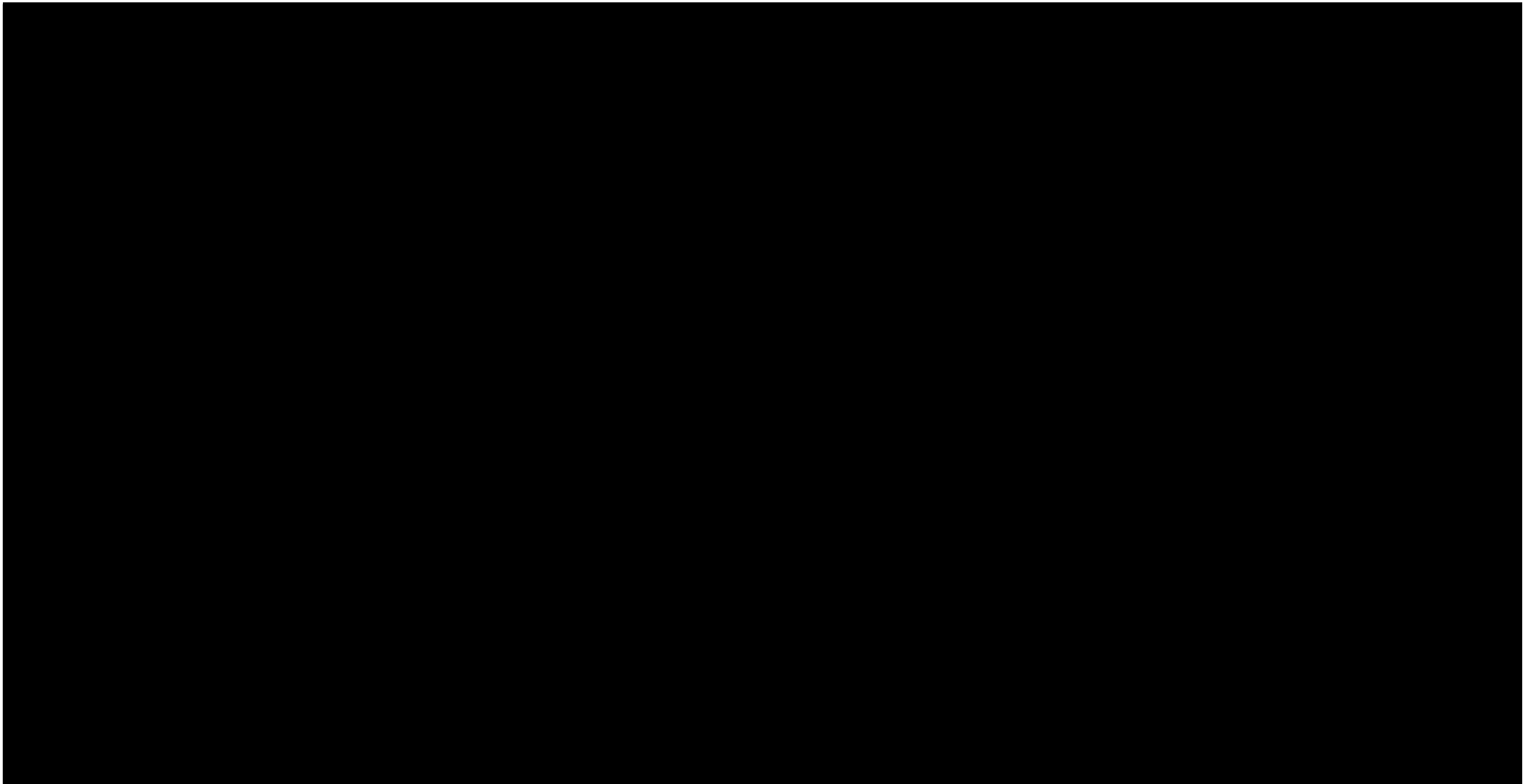
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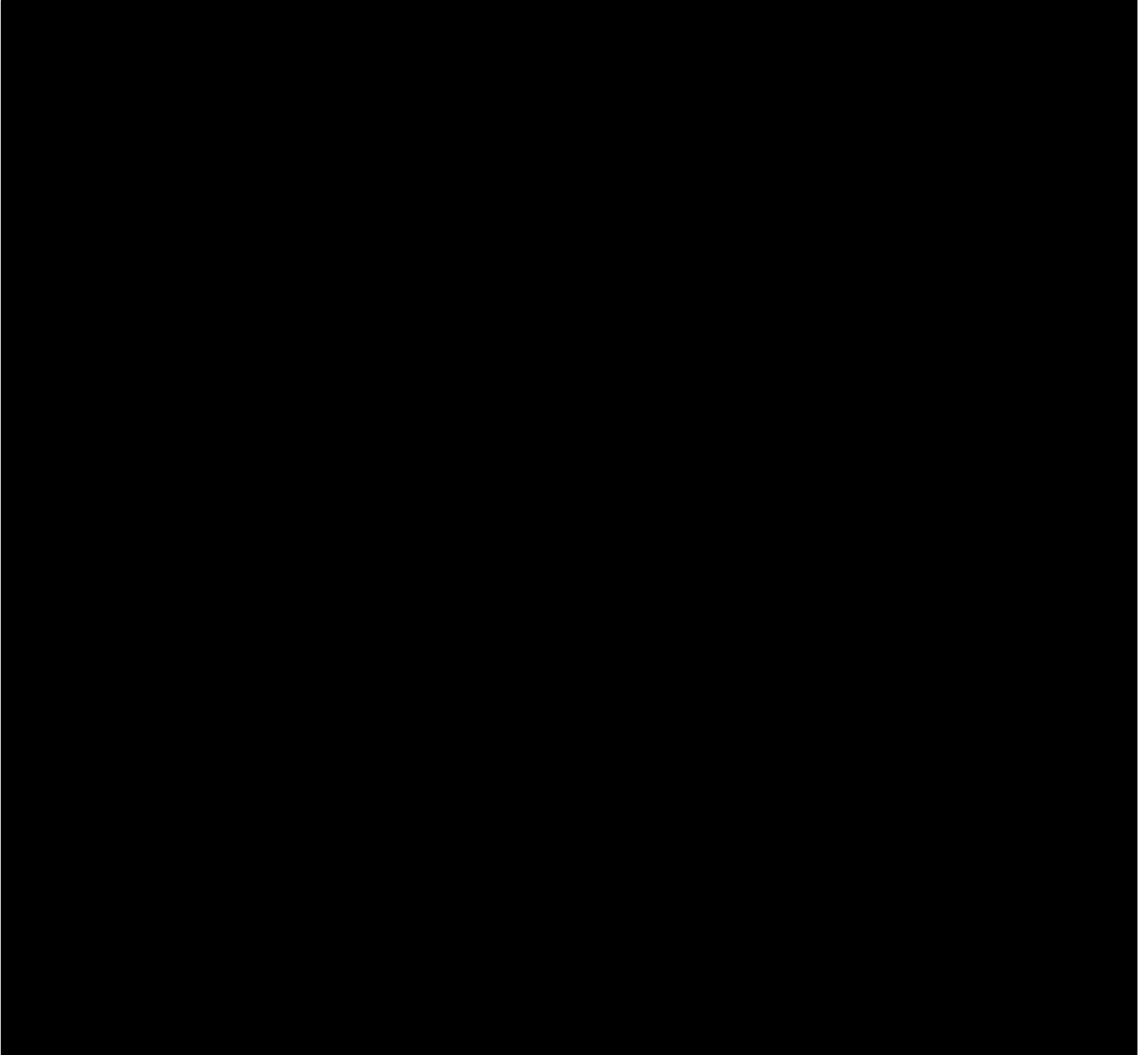
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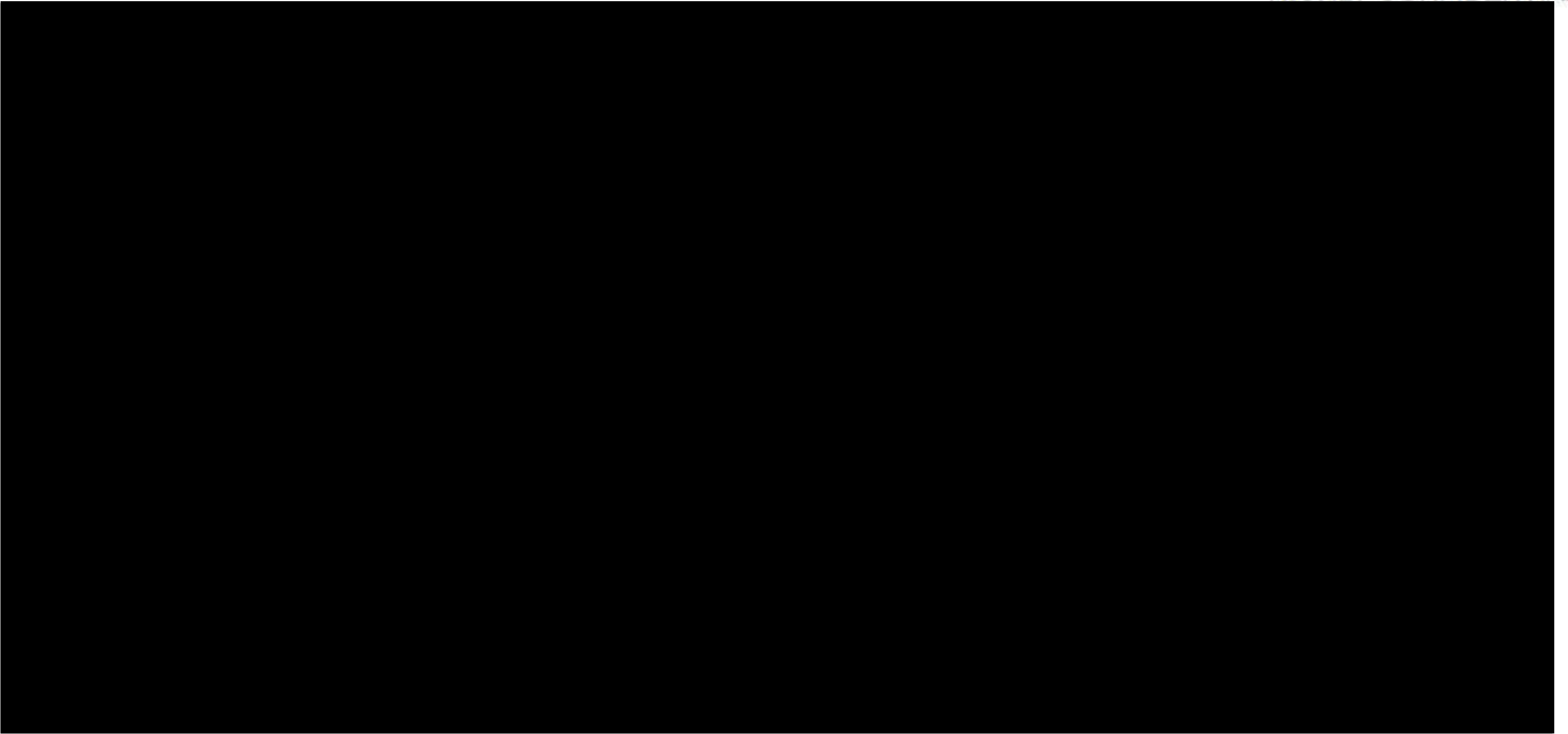
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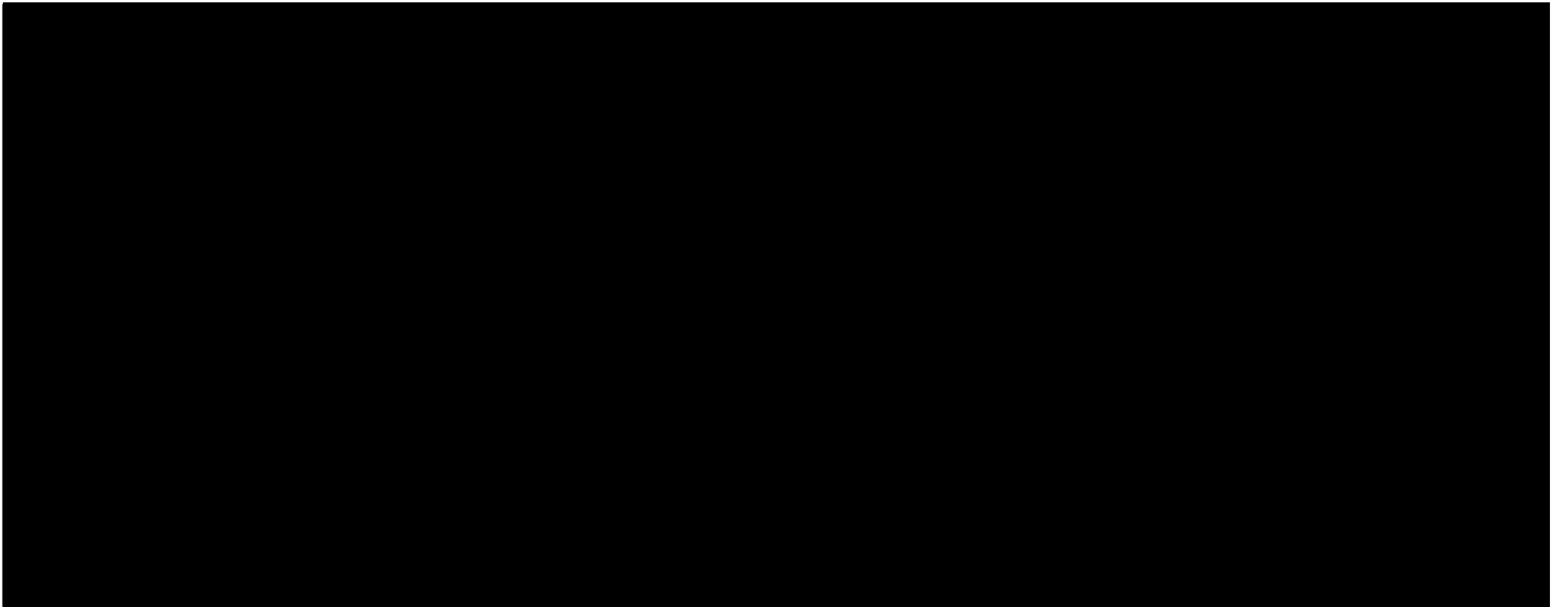
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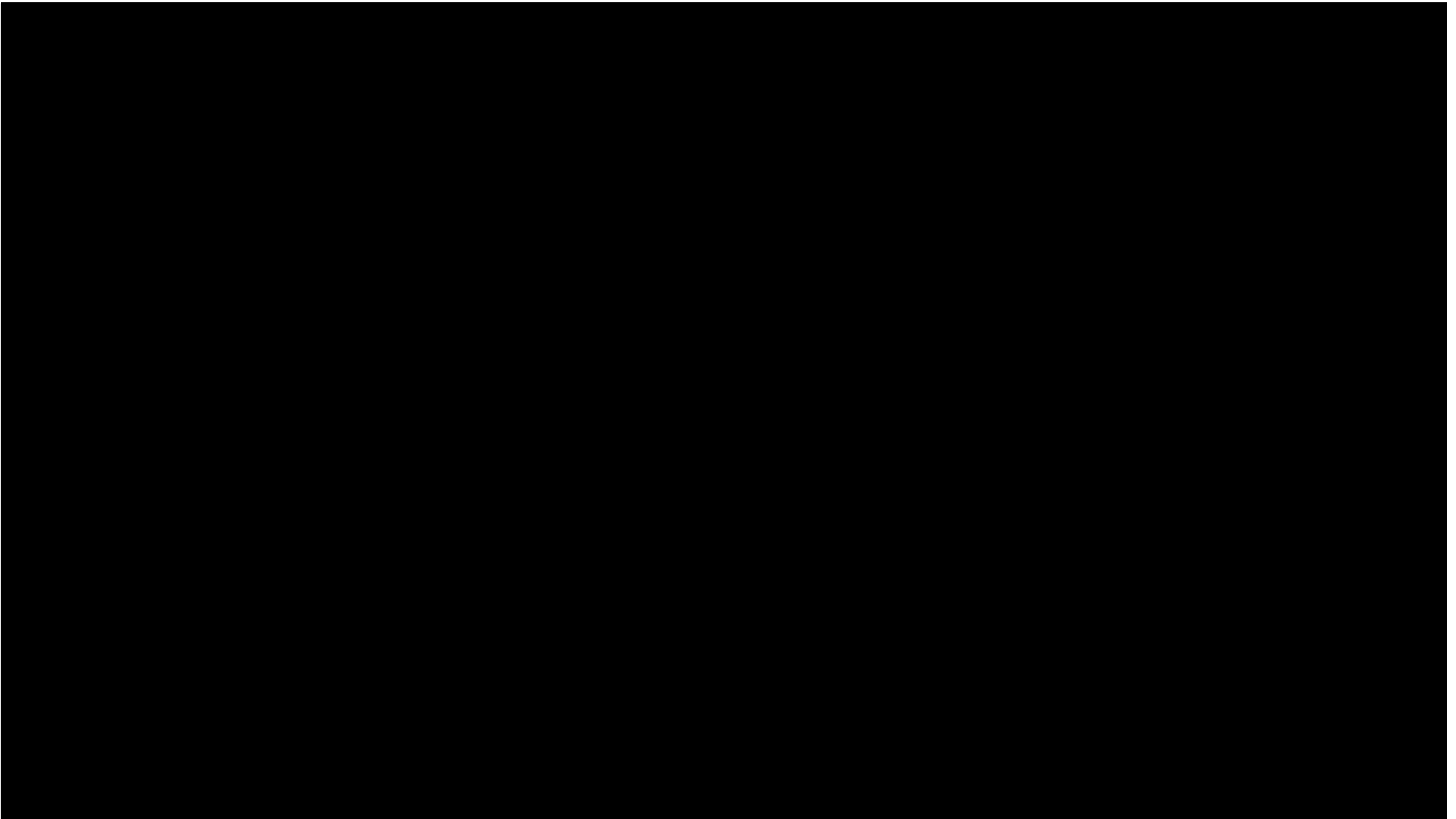
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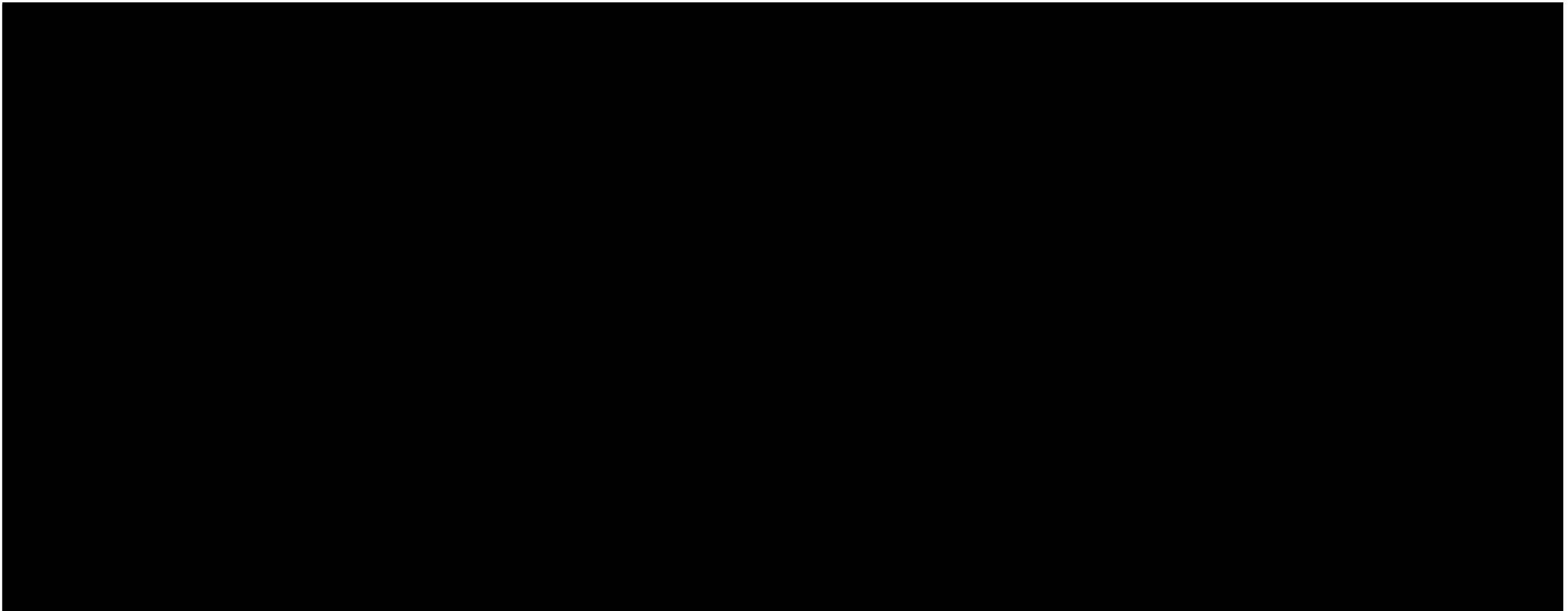
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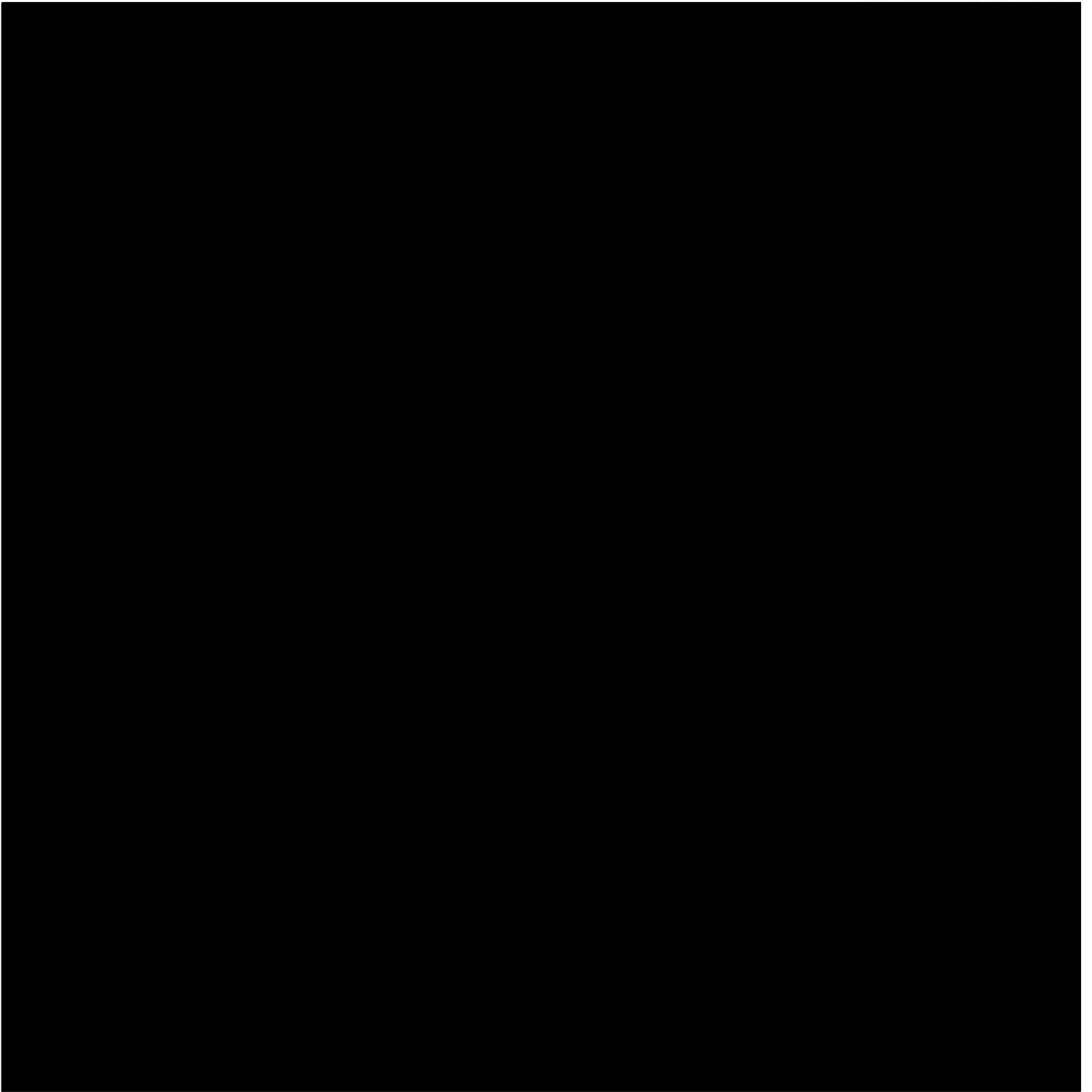
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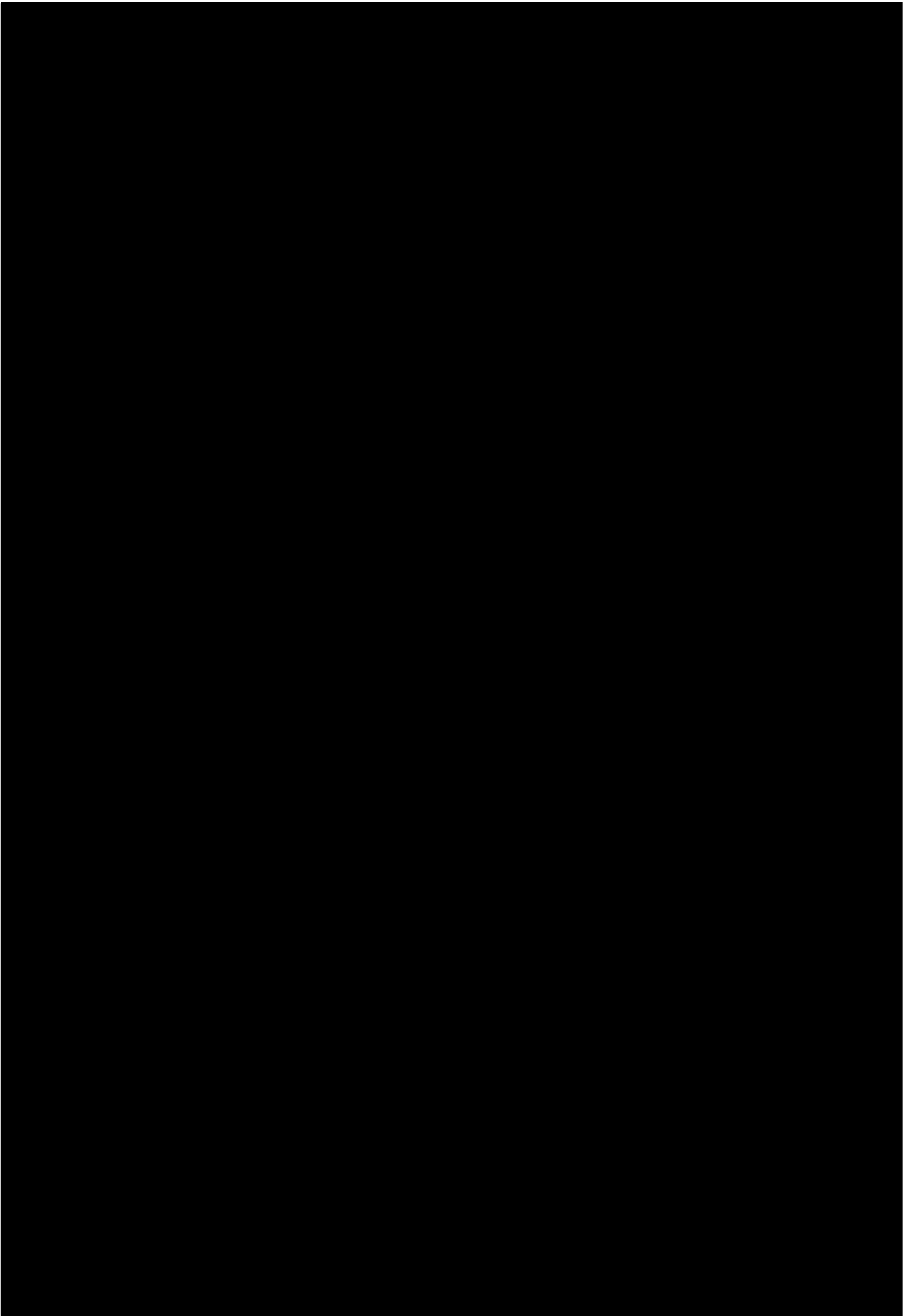
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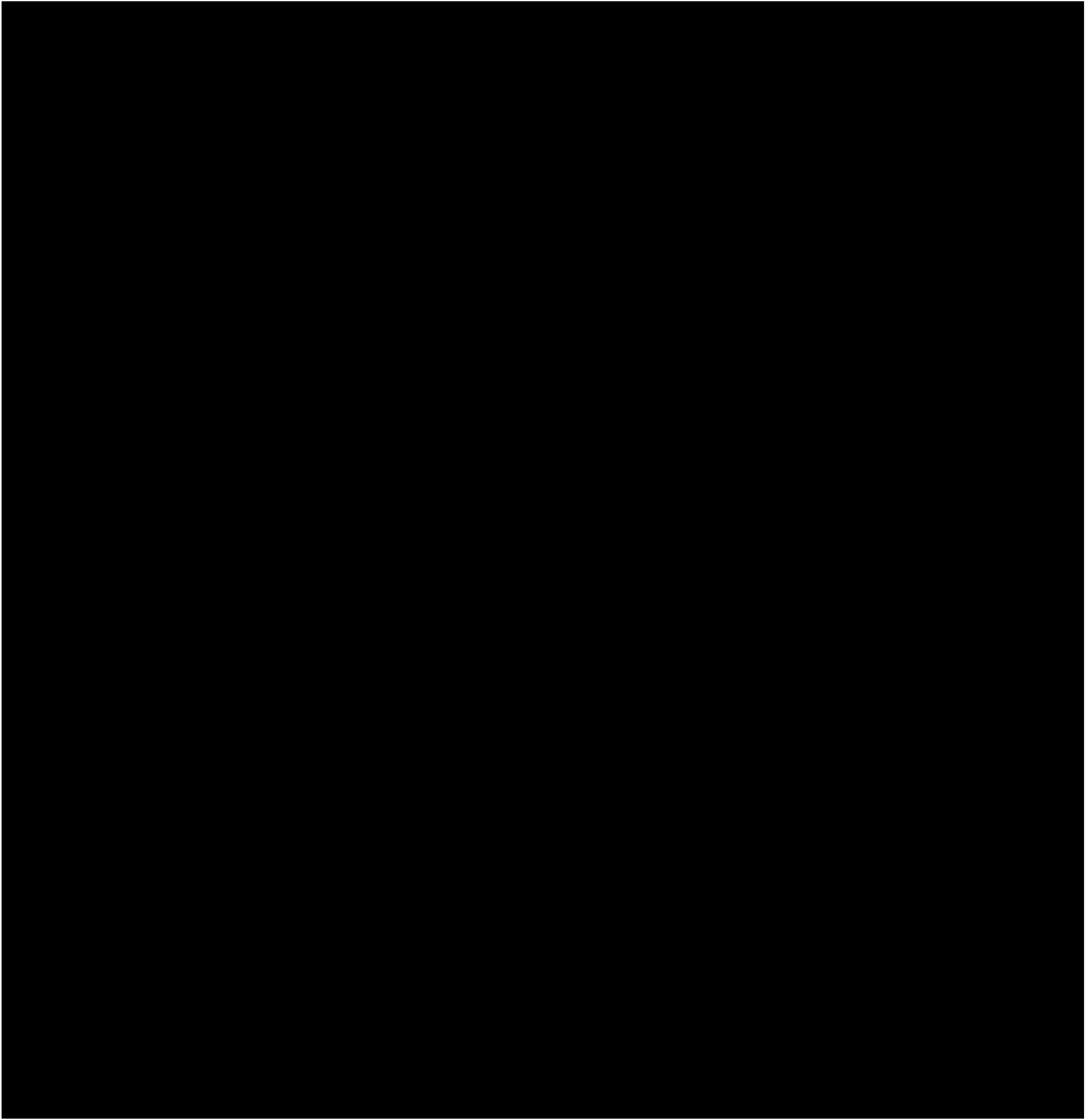
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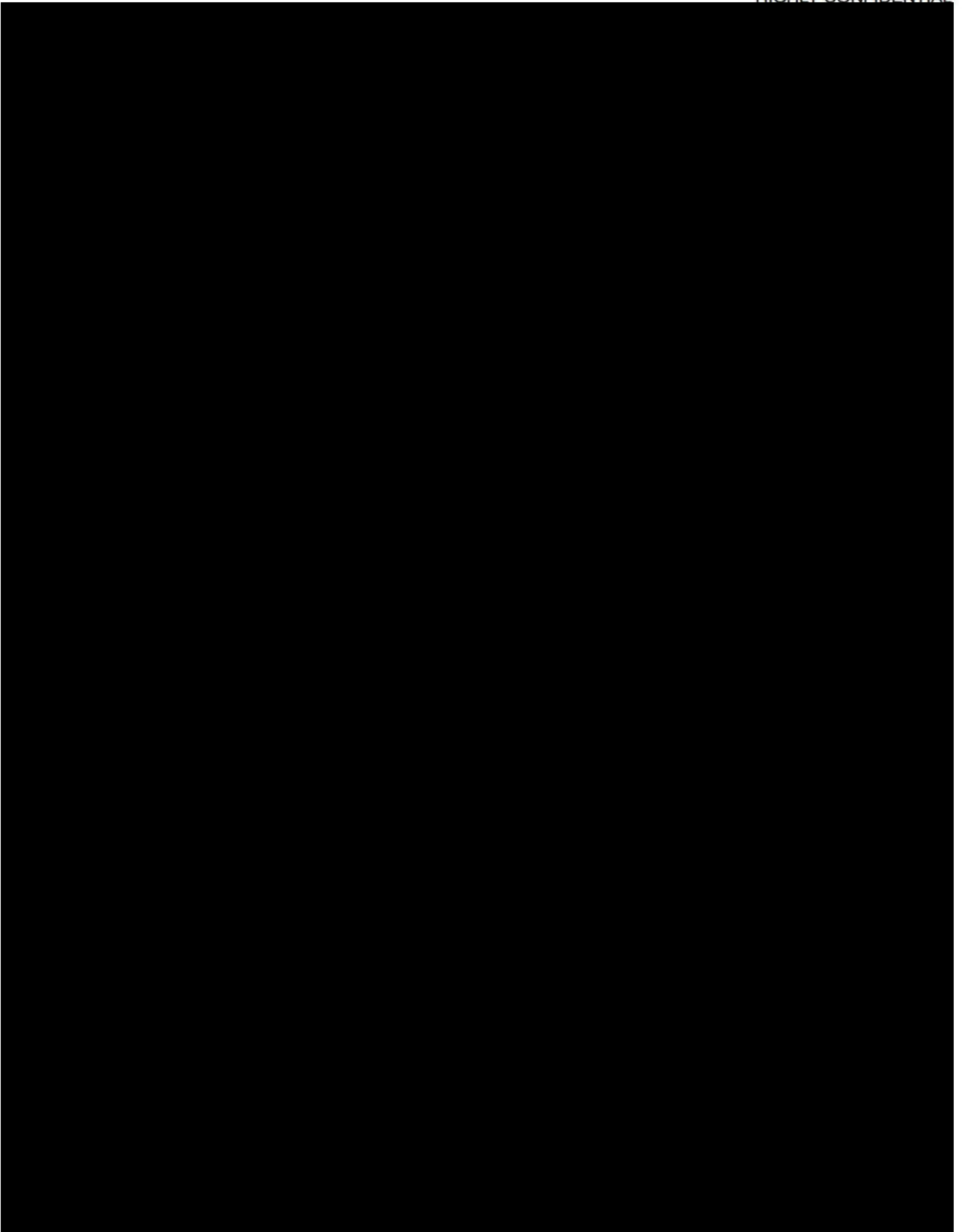
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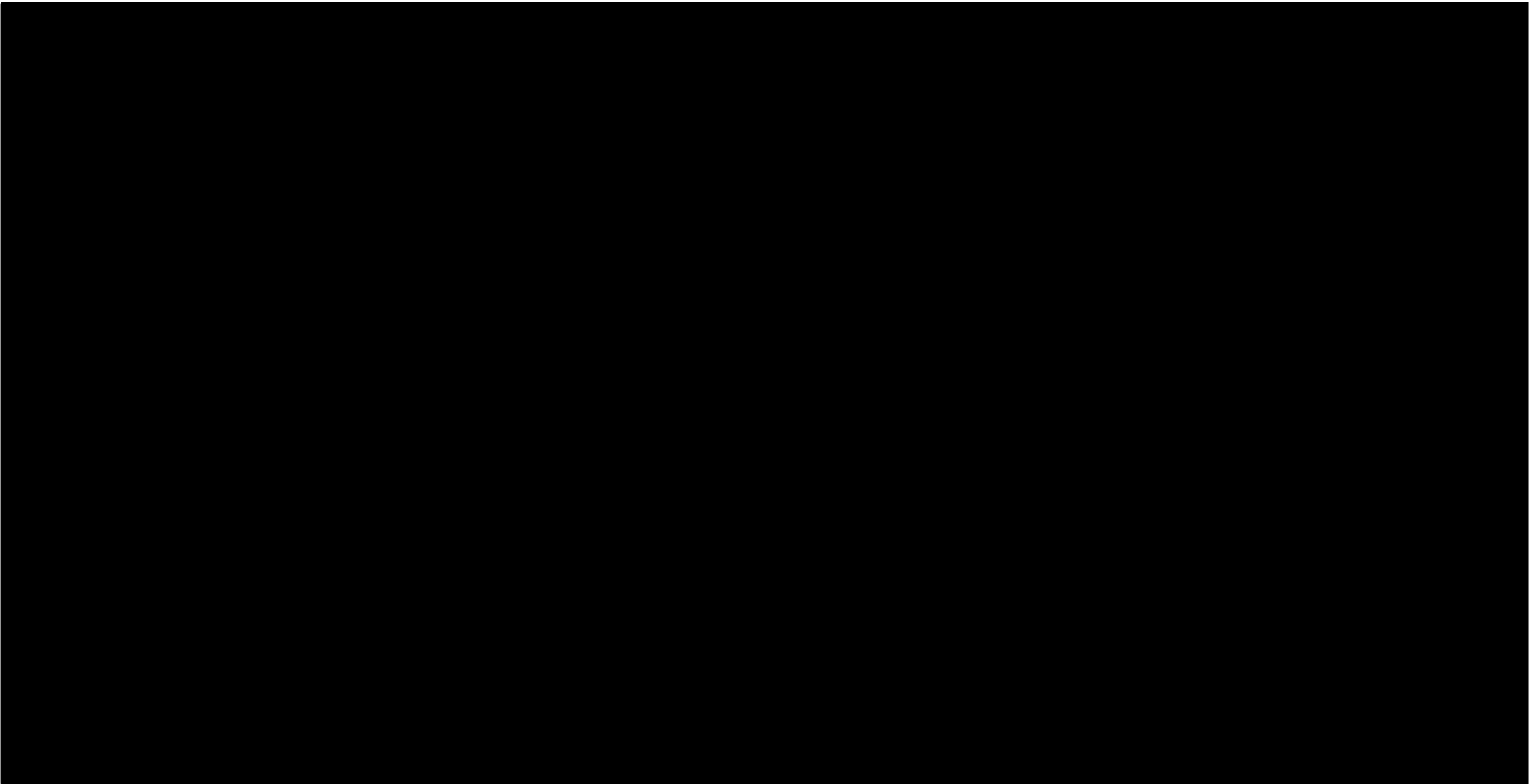
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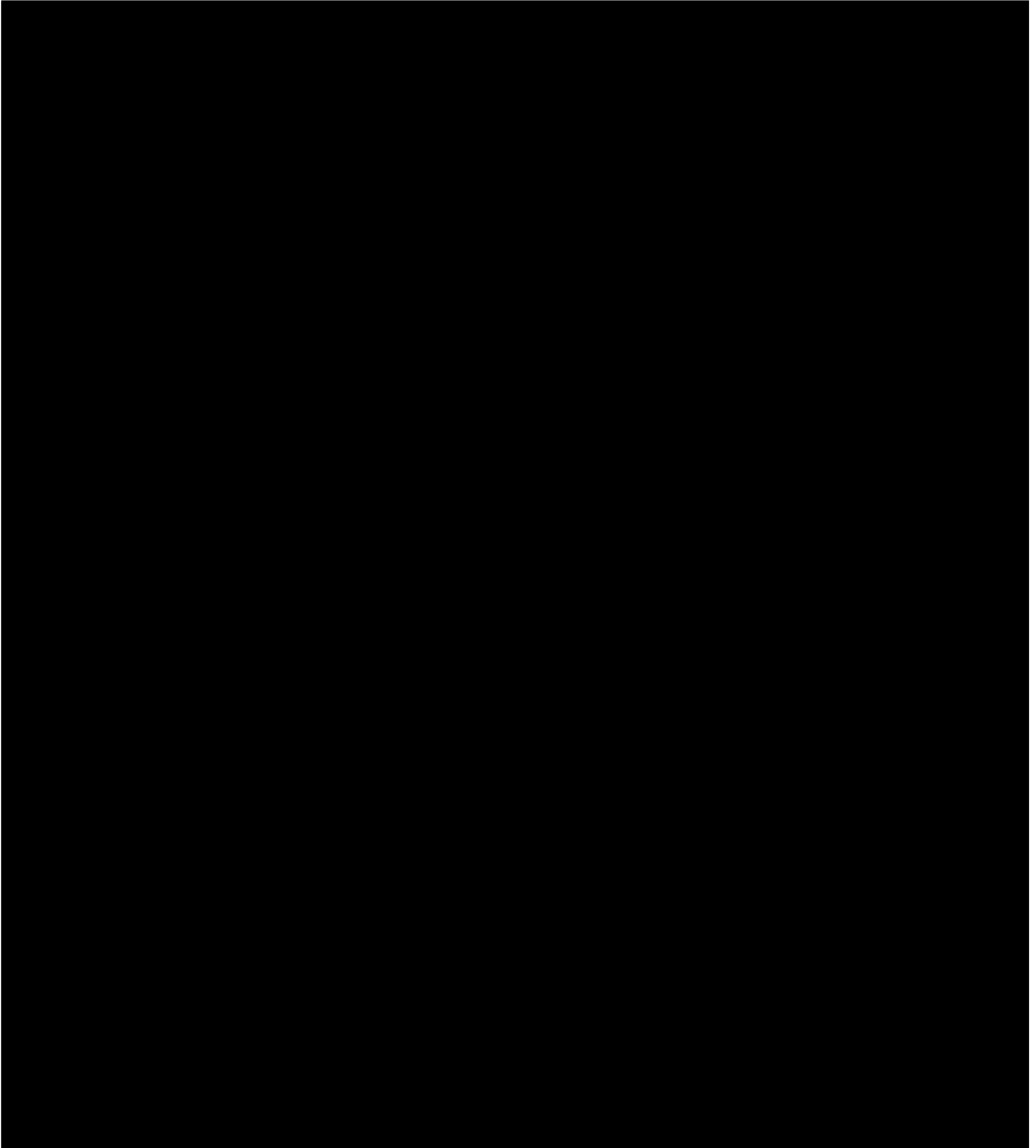
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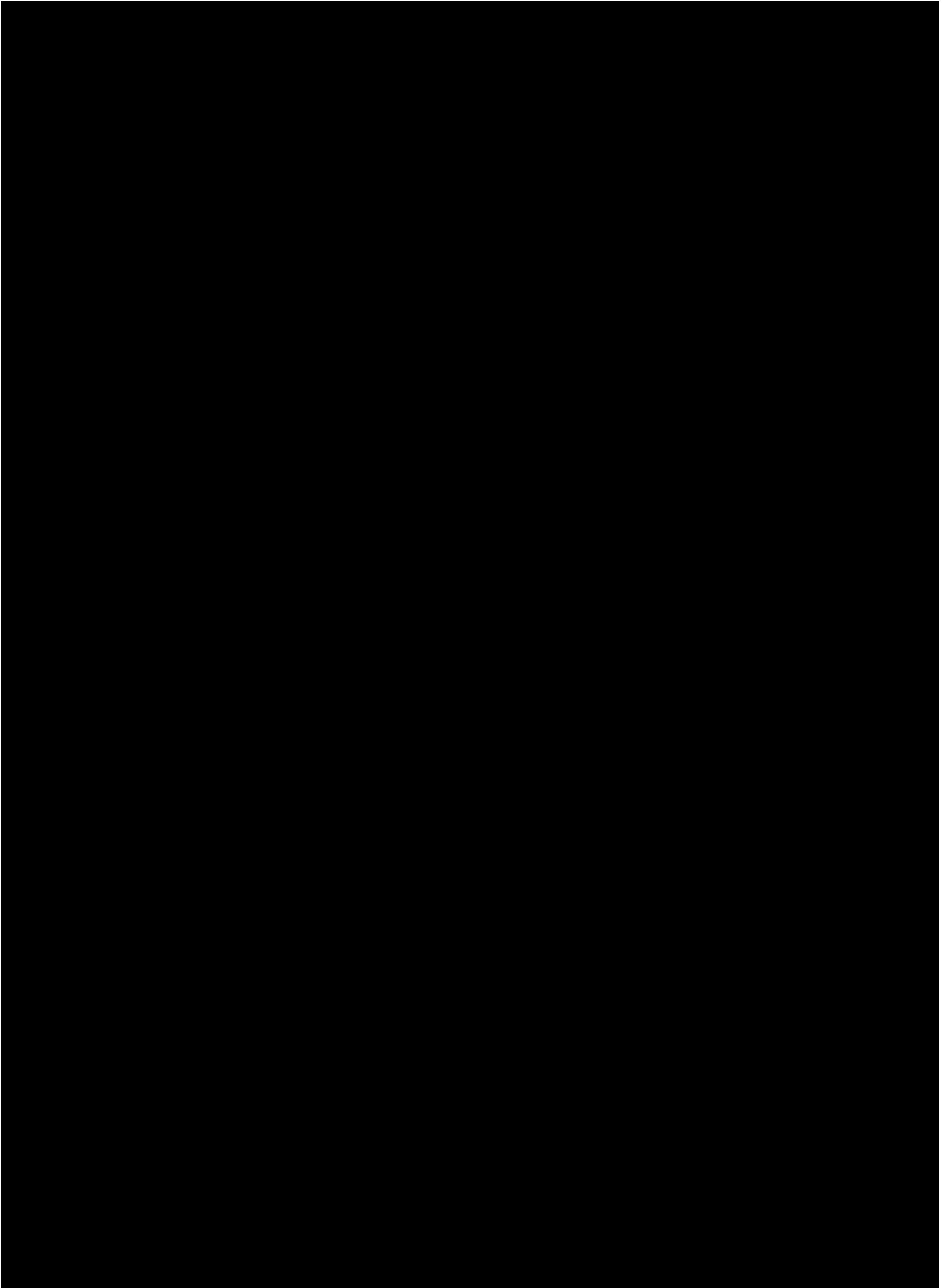
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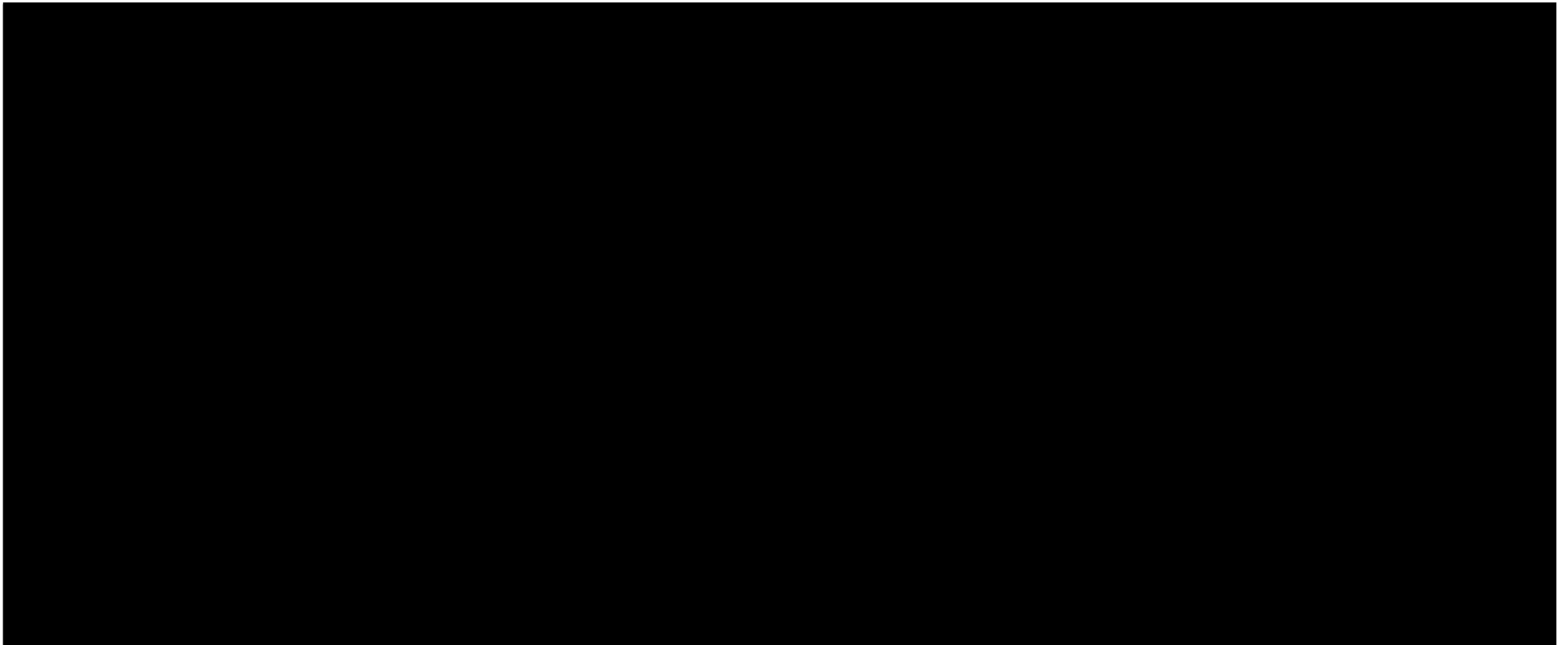
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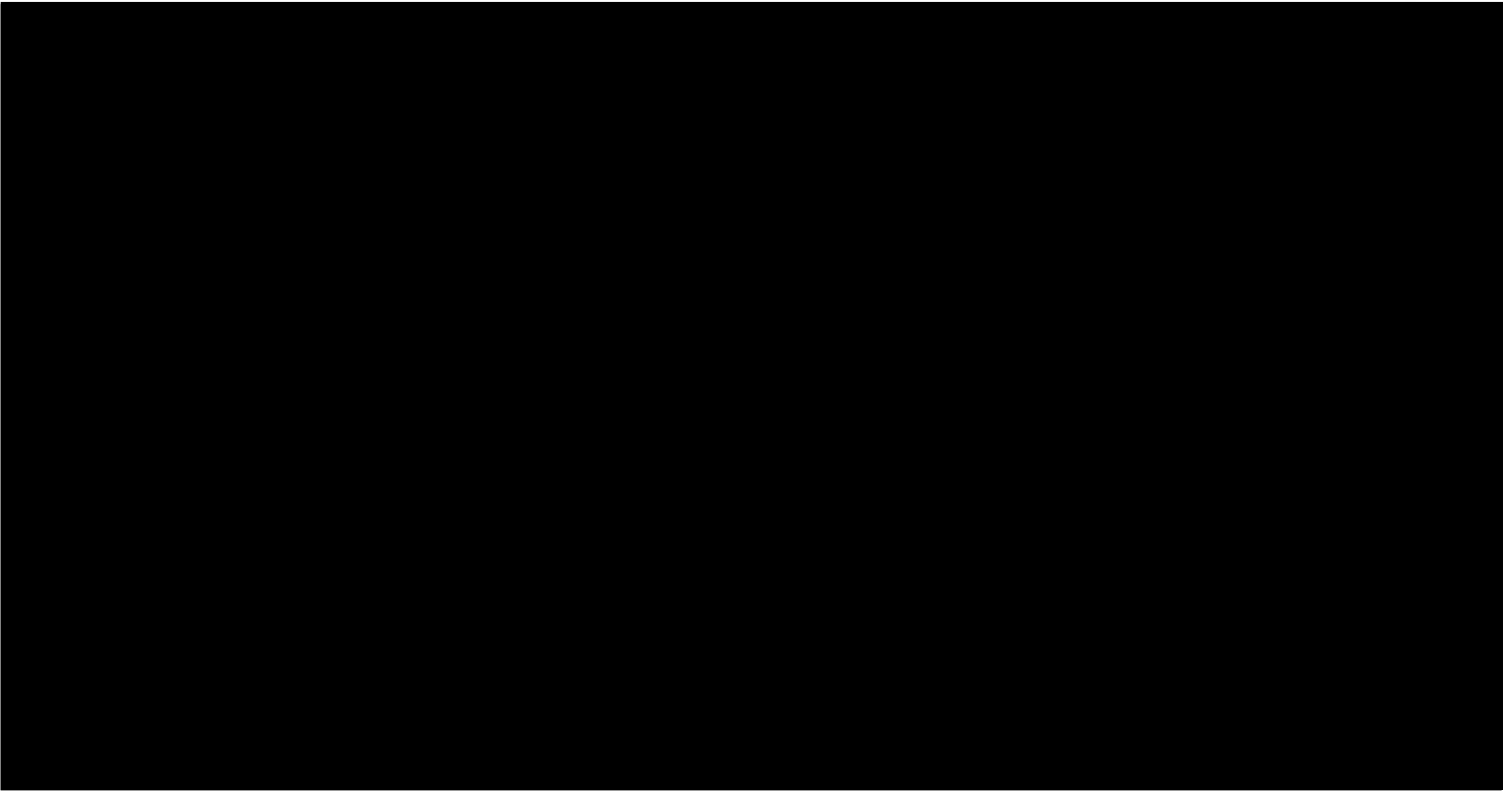
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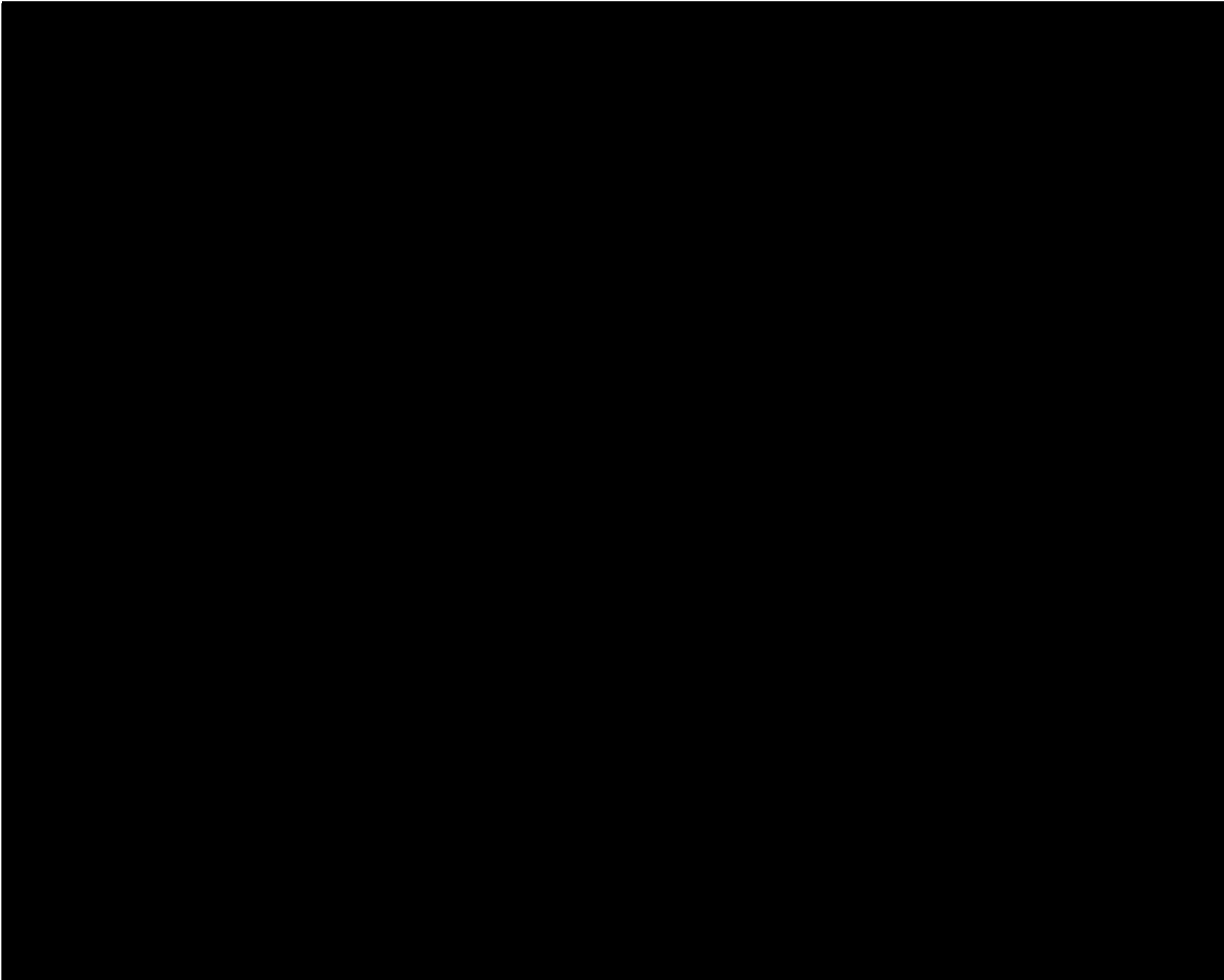
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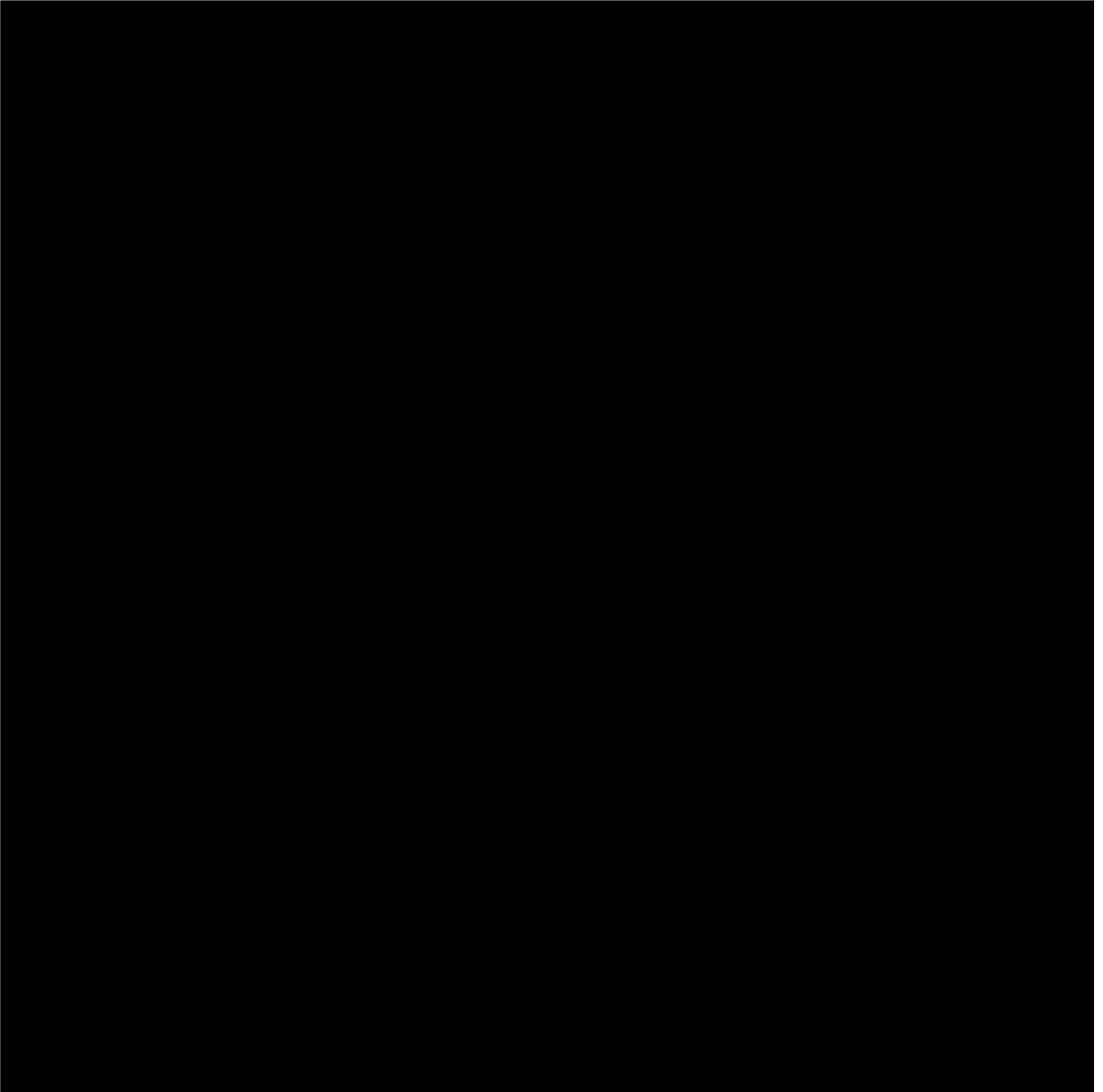
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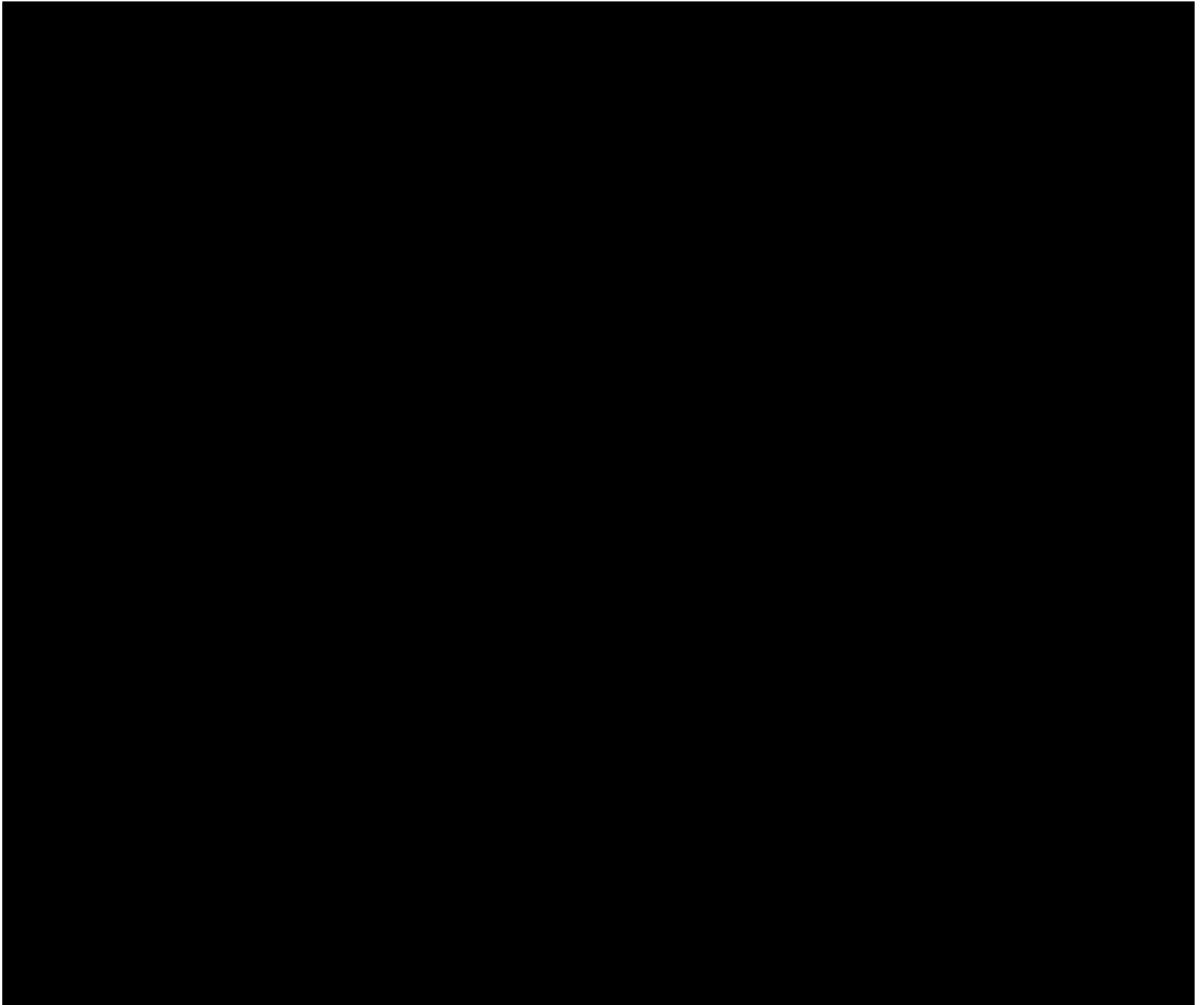
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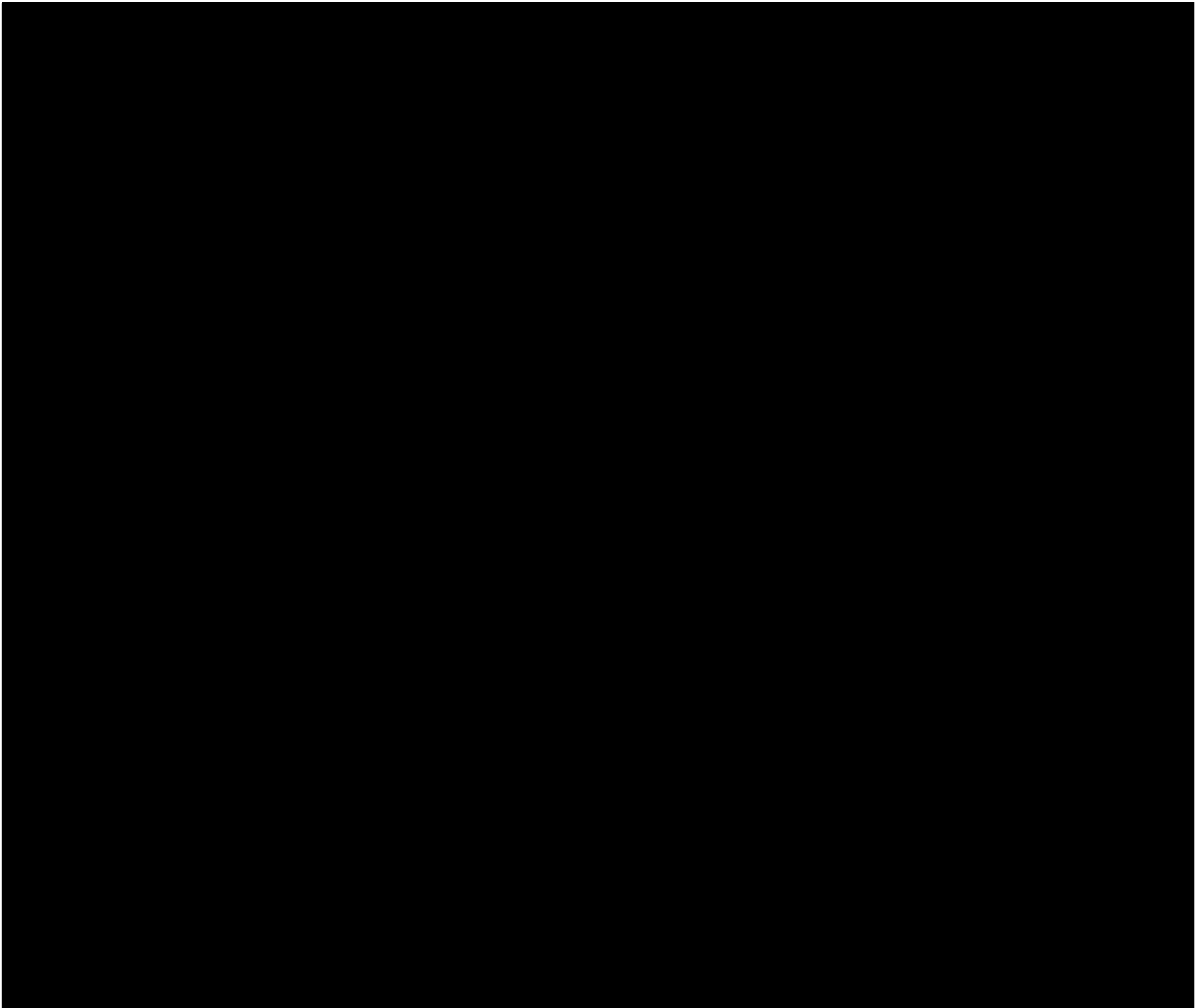
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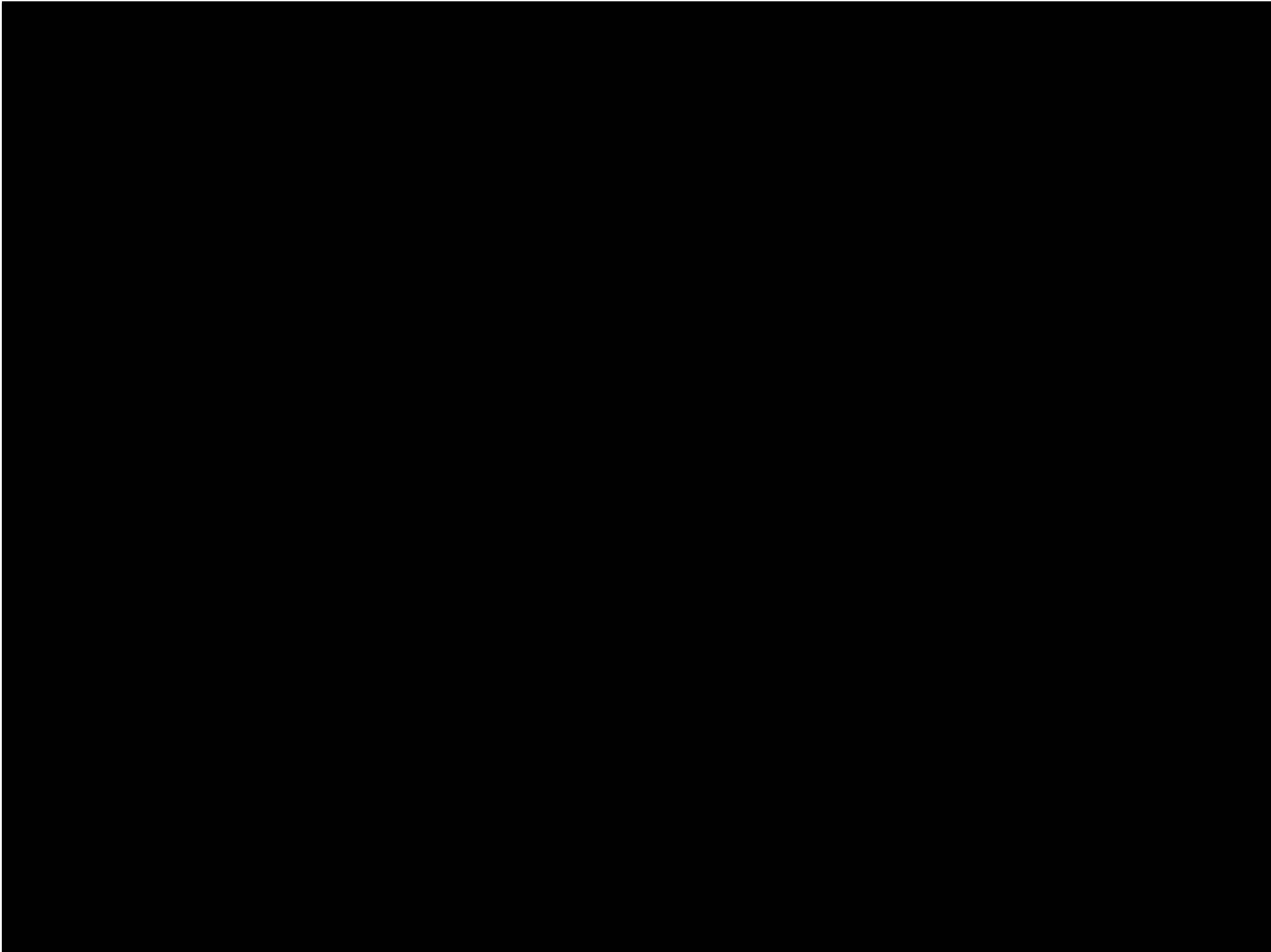
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